

119. RHIZOPHORACEAE

Trees or erect shrubs. Leaves opposite or distichous, simple, thickly coriaceous, entire, glabrous; stipules interpetiolar, caducous. Flowers bisexual, rarely unisexual or polygamous, axillary, solitary or fascicled or in depauperate cymes with cupular bracts at base or ebracteolate; calyx more or less adnate to ovary, limb produced above into 3-16 lobes, valvate, persistent; petals as many as calyx segments, entire, notched, cleft or lacerate; stamens twice the number of petals surrounding disk; anthers 2-celled, seldom many-locellate; ovaries inferior, rarely semi-inferior or superior, 2- to 12-celled, rarely 1-celled by suppression of septum; styles solitary; ovules 1-6, mostly 2 in each cell, borne at apex or inner angle of ovary cell. Fruits coriaceous, usually indehiscent; seeds 1-7.

Genera 16, species 120; in all tropical countries; 6 genera and 16 species in the Philippines.

1. Young branches solid; flowers sessile, cymosely clustered, upon short axillary stalks 1. *Carallia*
1. Young branches hollow; flowers pedicelled, fascicled along branches 2. *Pellacalyx*

1. **CARALLIA** A. Roxburgh, *nom. cons.*

Trees or shrubs, occasionally with stilt roots. Twigs solid. Leaves ovate or elliptic. Peduncles short, rather thick, axillary; flowers small, in short trichotomously branched cymes, sessile, often crowded; calyx minutely bracteate at base, produced into a short tube beyond ovary, acutely 5- to 9-lobed; petals as many, unguiculate, inserted upon crenulate disc lining calyx tube, clawed, orbicular, bifid, entire, subserrate or even lacerate at apex; stamens inserted in incisions of disc; filaments filiform; anthers small, oblong; ovaries inferior, usually 3- to 5- (-8)-celled with 2 ovules in each cell or 1-celled with 10-12 ovules; styles subulate-filiform; stigmas broad 3- to 5-lobed. Fruits small, berry-like, 1- to 5-seeded.

Species 10; in Madagascar, Sri Lanka, India, southeastern Asia, throughout Malesia to northern Australia and Melanesia; 1 in the Philippines.

1. ***Carallia brachiata*** (Lour.) Merr., *Philip. J. Sc.* 15: 249, 1919; *En. Philip.* 3: 146, 1923; Ding Hou, *Fl. Mal.* 1, 5: 485, f.31, 32, 1958. – *Diatoma brachiata* Lour., *Fl. Cochinch.* 296, 1790. – *Carallia integerrima* DC., *Prodr.* 3: 33, 1828. **Figure 157**

Trees erect, medium-sized. Leaves mainly terminal, 4-10 cm, midrib pronounced beneath, with obscure lateral nerves, obtusely rounded or merely acute, base broadly cuneate, shortly petioled. Cymes from either leaf or leaf scar axils, shortly branched; peduncles 1 cm long. Flowers yellowish,

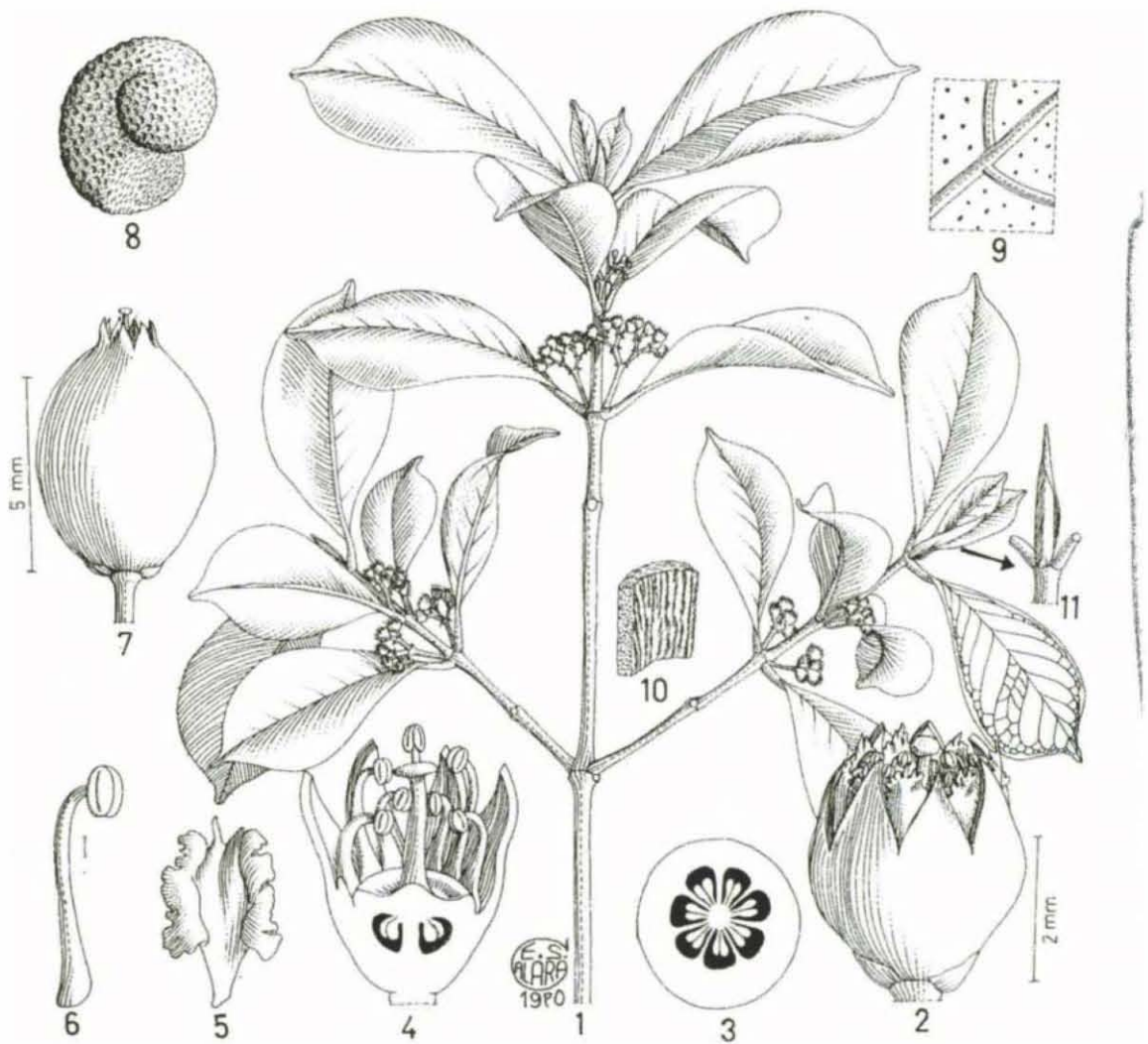


Figure 157. *Carallia brachiata*: 1. flowering branch; 2. flower; 3. ovary, cross section; 4. flower, vertical section, petals removed; 5. petal; 6. stamen; 7. fruit; 8. seed; 9. undersurface of leaf with black dots; 10. bark; 11. branch tip with bracteoles.

green, thick branches or pedicels subtended by short bracts. more or less glomerate, rigid, glutinous; calyx campanulate, usually terminated by 8 acuminate teeth; petals scarcely longer than calyx, obscurely fimbriate at broadened apex, not embracing stamens. Fruits fleshy, subglobose, 5-8 mm long, soft and dark wine-red when mature, mostly 1-seeded

Madagascar to India, southern China, Malesia and northern Australia to the Solomon Islands. Throughout the Philippines, in secondary forests at low and medium altitudes; in Mt. Makiling, Luzon, in second-growth forests up to 350 m.

Com. name – *Bakauan-gubat* (Mang.).

Exsicc. – *Gates CA 1968; Villena CA 1969; Cadiz CA 1970** (CAHP); *Rivera 33489* (PNH), *2212547* (US); *Bañaga 33397* (PNH), *2212452* (US); *Lazo 33411* (PNH), *2212465* (US); *Rañeses 33441* (PNH), *2212492* (US).

2. PELLACALYX Korthals

Trees or shrubs. Young branches hollow. Leaves glabrous or ferruginously pubescent beneath, subentire or entire, oblong. Flowers stalked, axillary, solitary or few-fascicled, sometimes in dichotomously branched glomerules; calyx thick, ebracteolate, jug-shaped, drawn out from a tube above ovary, limb minutely 3- to 8-fid; petals 2-6, small, lacerated or wanting; stamens inserted on margin of crenulate disc lining calyx tube; filaments short, subulate, bearing small anthers; ovaries inferior, 6- to 10-celled, with many ovules to each cell; styles subulate; stigmas discoid-lobed. Fruits berry-like, pisiform to turbinate, fleshy, 5- to 10-celled, with many small seeds.

Species 8; Burma, Thailand, southern China, Sumatra, Malay Peninsula, Borneo and Celebes, 2 in the Philippines

1 *Pellacalyx pustulata* Merr., Publ. Gov. Lab. Philip. 35: 47, 1905; En. Philip. 3: 148, 1923; Ding Hou, Fl. Mal. I., 5: 492, 1958.

Trees erect, low with spreading crown. Leaves usually a trifle wider above middle, 10-15 x 5.5 cm, conspicuous midrib with 5-8 pairs of faint, ascendingly curved nerves, pustulate beneath, rounded with short, blunt apex, base obtuse to rounded; petioles 1 cm long or shorter. Flowers in small fascicles, mainly from axils of leaf scars, subtended by acuminate, brown-puberulous, caducous bracts, greenish; pedicels as long as petioles; calyx campanulate, segments 5-valvate, ultimately spreading, acute, velvety-gray on upper side; petals 5, recurved between calyx teeth; stamens equal; ovaries 5-celled. Fruits ovoid succulent, 2 cm long, terminated by erect calyx crown, greenish white.

Northern Celebes. Throughout the Philippines, in forests at low elevations, especially along watercourses; in Mt. Makiling, Luzon, mostly along Molawin Creek.