

## 2. GYNOCARDIA R. Brown in Roxburgh, Pl. Coromandel 3: 95. 1820.

马蛋果属 ma dan guo shu

*Chaulmoogra* Roxburgh; *Chilmoria* Buchanan-Hamilton.

Trees, dioecious. Leaves alternate; stipules caducous, not seen; petiole present; leaf blade leathery, pinnate-veined, margin entire. Flowers hypogynous, solitary or few in axillary bracteate corymbs (staminate flowers), or in corymbose clusters arising from tubercles on stems and older branches (staminate or pistillate flowers), pedicellate; pedicels articulate, bracteolate; buds globose. Calyx closed in bud, later cupular, subtruncate, 5-dentate or shallowly 3–5-lobed, finally sometimes with 3–5 irregular or orbicular sepals. Petals 5, united at base, fleshy, each with a scale inside at base. Disk and disk glands absent. Staminate flowers: stamens many (ca. 100); filaments free, filiform; anthers basifixed, linear-sagittate, small; pistillode absent. Pistillate flowers: staminodes 10–15; ovary superior, 1-loculed, placentas 5, each with numerous ovules; styles 5, free, columnar; stigmas cordate or peltate, small. Fruit baccate, pericarp thick, woody. Seeds immersed in pulp, numerous, testa thick, crisp; endosperm oily, fleshy; cotyledons compressed-flat.

One species: Asia.

**1. *Gynocardia odorata*** R. Brown in Roxburgh, Pl. Coromandel 3: 95. 1820.

马蛋果 ma dan guo

*Chaulmoogra odorata* Roxburgh; *Chilmoria dodecandra* Buchanan-Hamilton.

Trees, evergreen, to 30 m tall; twig tips and branchlets glabrous; bark brown, not flaking; branchlets terete; winter buds ovoid-orbicular. Petiole 1–3 cm, usually glabrous, sometimes sparsely appressed puberulous; leaf blade greenish abaxially, deep green adaxially, nearly concolored when dry, oblong-elliptic, rarely ovate-oblong or obovate-oblong, 13–20 × 5–10 cm, leathery, lateral veins 4–8 pairs, conspicuous abaxially, reticulate veins parallel, margin entire, slightly uneven, base rounded or acute-cuneate, apex rounded, contracting abruptly to a short narrow acumen. Pedicels 2.5–5 cm, sparsely appressed hairy or

glabrous. Staminate flowers 3–4 cm in diam., fragrant; calyx lobes ca. 7 mm, obtuse to rounded, outside glabrous or with short, sparse, appressed hairs; petals yellowish green, oblong or slightly obovate, 1.5–2 cm, glabrous, apex obtuse; epipetalous scale oblong or ovate, ca. 6 × 4 mm, densely ciliate, apex obtuse; stamens ca. 1 cm, filaments villous, anthers ca. 5 mm. Pistillate flowers larger than staminate flowers; petals ca. 2.5 cm; staminodes 10–15, villous; styles short, slender; stigmas peltate or cordate. Berry yellowish brown, globose, (5–)8–12 cm in diam.; pericarp grayish, ca. 5 mm thick, woody, rugose, glabrous. Seeds numerous, variable in shape and size, usually obovoid to ellipsoid, 2.5–3 cm, hilar region large, silvery gray. Fl. Jan–Feb, fr. Jun–Aug.

Moist sparse forests of mountain valleys; 800–1000 m. SE Xizang (Médog), SE Yunnan [Bangladesh, Bhutan, India, Myanmar, Nepal].

