

1. HARRISONIA R. Brown ex A. Jussieu, *Mém. Mus. Hist. Nat.* 12: 517. 1825, nom. cons.,
not *Harrisonia* Adanson ex Léman (1821).

牛筋果属 niu jin guo shu

Shrubs (often scrambling or rarely somewhat climbing) or rarely small trees, armed. Leaves odd-pinnate or digitately trifoliolate; leaflet blades crenulate to lobulate or rarely entire at margin. Flowers in terminal and/or axillary cymes, racemes, or rarely thyrses, 4- or 5(or 6)-merous. Stamens $2 \times$ as many as petals; filaments inserted at base of disk, with hairy ligulate appendage at base. Disk pulvinate to cup-shaped. Gynoecium 4- or 5(or 6)-carpelled and -loculed; ovaries \pm completely connate; ovules 1 per locule; stilar elements sometimes distinct at base, otherwise coherent; stigma capitate and often slightly lobed. Fruit subglobose, completely syncarpous or slightly lobed, drying black when ripe. Seeds pyriform; seed coat thin and brittle; endosperm \pm scant; embryo bent double; cotyledons \pm flattened, elliptic-oblong.

Three species: tropical Africa (*Harrisonia abyssinica* Oliver), S and SE Asia (*H. perforata* and *H. brownii* A. Jussieu), N Australia (*H. brownii*); one species in China.

In the study of fresh material of *Harrisonia brownii* and relevant herbarium specimens at hand (which comprise 30 collections of *H. brownii*, nine of *H. perforata*, and four of *H. abyssinica*), we have found no evidence (with the possible exception of occasional specimens of *H. perforata*; see description below) that the plants produce oil glands.

1. *Harrisonia perforata* (Blanco) Merrill, *Philipp. J. Sci., C*, 7: 236. 1912.

牛筋果 niu jin guo

Paliurus perforatus Blanco, *Fl. Filip.* 174. 1837;
Feroniella pubescens Tanaka; *Harrisonia citrinaecarpa* Elmer;
Lasiolepis multijuga Bennett; *L. paucijuga* Bennett & R. Brown;
Limonia pubescens Wallich ex J. D. Hooker; *P. dubius* Blanco.

Shrubs nearly erect or somewhat climbing, 1–2 m tall. Leaves odd-pinnate, 3–17-foliolate, 3–14 cm; rachis usually winged; leaflet blades equilaterally or inequilaterally ovate to obovate, 1.5–4.5 \times 0.7–2 cm, margin crenulate or sometimes

entire, in occasional specimens some crenulations with pellucid cavities that seem to lack oil and may be hydathodes. Inflorescences cymose to racemose, to 3 cm, few to many flowered. Flowers bisexual, mostly 5-merous. Sepals ca. 1.5 mm, connate at base or to \pm half their length. Petals ovate-elliptic or lanceolate, 5–7 mm. Stamens to 9 mm. Gynoecium usually 5-carpelled and -loculed; ovary glabrous, slightly lobed, ca. 1 mm; style pubescent, to 8 mm. Fruit subglobose, entire or slightly lobed, 1–1.5 cm in diam.; endocarp ca. 1 mm thick. Seeds ca. 3.5 mm. Fl. Apr–May, fr. May–Aug.

Sparse forests, scrub; low elevations. SW Guangdong (Leizhou Bandao), Hainan [Cambodia, India (Andaman Islands), Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam].

