

7. **MONOTROPASTRUM** Andres in Handel-Mazzetti, Symb. Sin. 7: 766. 1936.

沙晶兰属 sha jing lan shu

Qin Haining (覃海宁); Gary D. Wallace

*Eremotropa* Andres; *Monotropanthum* Andres.

Herbs perennial, obligate mycoparasitic, from persistent root system. Roots forming a rather dense mass. Stems absent. Leaves absent. Inflorescences scapose or racemose, arising in nodding position from roots; inflorescence bracts laminar, sessile, usually appressed to inflorescence axis. Flowers solitary on scapes or in several flowered racemes, each flower usually nodding at anthesis, erect in fruit. Sepals (1–)3(–5), occasionally absent, appressed to petals. Petals 3–5, oblong, abaxially glabrous, adaxially finely pubescent, base broadly saccate, apex dilated. Stamens ca. as long as petals, usually 6–10 in two series of alternating lengths. Anthers horizontally reniform, with terminal slits. Disk of paired lobes at bases of shorter series of stamens. Ovary 1-loculed, with 4 or 5 or more parietal placentae; style 3–6 mm, slender, merging imperceptibly with ovary, without visible dehiscence lines. Fruit an indehiscent berry. Seeds minute, numerous, ovoid, cell reticulate, without wings or appendages.

Two species: Bhutan, China, India, Indonesia (Sumatra), Japan (including Ryukyu Islands), Korea, Laos, Myanmar, Nepal, Russia (Sakhalin), Sikkim, Thailand, Vietnam; two species (one endemic) in China.

See the taxonomic comment under *Monotropa* above.

*Monotropastrum arisanarum* Andres (Notizbl. Bot. Gart. Berlin-Dahlem 12: 698. 1935) was described from Taiwan. We have seen no specimens and are therefore unable to treat it in this account. Further revision is necessary.

- 1a. Inflorescence scapose, flower solitary; petals similar to sepals but broadly saccate at base; disk lobes elongate, slender ..... 1. *M. humile*
- 1b. Inflorescence racemose, flowers 2 to several; petals distinct from sepals, narrowly saccate at base; disk lobes short, stout ..... 2. *M. sciaphilum*

**1. *Monotropastrum humile*** (D. Don) H. Hara, J. Jap. Bot. 36: 78. 1961.

dia, Indonesia (Sumatra), Japan (including Ryukyu Islands), Korea, Laos, Myanmar, Nepal, Russia (Sakhalin), Sikkim, Thailand, Vietnam].

球果假沙晶兰 qiu guo jia sha jing lan

*Monotropa humilis* D. Don, Prodr. Fl. Nepal. 151. 1825; *Cheilothea humilis* (D. Don) H. Keng; *C. humilis* var. *glaberrima* (H. Hara) H. Keng & C. F. Hsieh; *C. humilis* var. *pubescens* (K. F. Wu) C. Ling; *C. macrocarpa* (Andres) Y. L. Chou; *C. pubescens* (K. F. Wu) Y. L. Chou; *Monotropa uniflora* Linnaeus var. *pentapetala* Makino; *M. uniflora* var. *tripetala* Makino; *Monotropanthum ampullaceum* Andres; *Monotropastrum baranovii* Y. L. Chang & Y. L. Chou; *M. globosum* Andres ex H. Hara; *M. globosum* var. *baranovii* (Y. L. Chang & Y. L. Chou) Y. C. Zhu; *M. globosum* var. *pentapetalum* (Makino) Honda; *M. globosum* var. *tripetalum* (Makino) Honda; *M. humile* var. *glaberrimum* H. Hara; *M. humile* var. *tripetalum* (Makino) H. Hara; *M. lungchuanense* K. F. Wu; *M. macrocarpum* Andres; *M. pubescens* K. F. Wu; *M. tschanbaischanicum* Y. L. Chang & Y. L. Chou; *M. tschanbaischanicum* var. *baranovii* (Y. L. Chang & Y. L. Chou) Y. L. Chou.

Inflorescences scapose, 10–20 cm tall, 2–8 mm in diam. below flower, emerging from soil in nodding position, 1-flowered. Flowers nodding at anthesis, tubular-campanulate. Sepals 1–5, oblong, 8–20 × 2–11 mm, usually glabrous. Petals 3–5, usually oblong, 10–20 × 5–15 mm, slightly longer than sepals, abaxially glabrous, adaxially pubescent, base broadly saccate. Disk of paired, elongate, slender lobes protruding from ovary toward basal saccate portions of petals. Berries erect to nodding, white, ovoid-globose, 9–20 × 10–24 mm, seeds numerous embedded in fleshy interior. Fl. Apr–Aug, fr. May–Sep.

Damp deciduous and mixed forests; 100–2500 m. Heilongjiang, Hubei, Jilin, Liaoning, Taiwan, Xizang, Yunnan, Zhejiang [Bhutan, In-

**2. *Monotropastrum sciaphilum*** (Andres) G. D. Wallace, *Taxon* 36: 129. 1987.

阴生沙晶兰 yin sheng sha jing lan

*Eremotropa sciaphila* Andres, *Bot. Jahrb. Syst.* 76: 107. 1955; *E. wuana* Y. L. Chou.

Inflorescences to 4–11 cm tall, to 5 mm diam. below lowest flower, 2- to several flowered racemes. Flowers nodding at anthesis, tubular-campanulate. Sepals 4 or 5, elliptic-oblong, to  $9 \times 4$  mm. Petals 4 or 5, oblong, to  $15 \times 8$  mm, decidedly longer than sepals, base shallowly saccate. Disk of paired, short blunt lobes protruding from base of ovary opposite saccate portions of petal bases. Fl. and fr. unknown.

- *Quercus* forests; ca. 2200 m. Yunnan (near Kunming).

The berry is not mature on the type specimen of *Eremotropa sciaphila*, the only specimen seen by one of us (Wallace).

