



# *Asystasia gangetica* (L.) T. Anderson

## ACANTHACEAE

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### Synonyms

*Asystasia gangetica* (L.) T. Anderson: *Asystasia bojeriana* Nees, *Asystasia comorensis* Nees, *Asystasia comorensis* var. *humilis* Nees, *Asystasia coromandeliana* Burkill & C.B. Clarke, *Asystasia coromandeliana* Nees, *Justicia gangetica* L., *Ruellia zeylanica* Roxb.

### Local Names

*Asystasia gangetica*: **Digo**: Mforfor (Kokwaro 2009), **English**: Tropical primrose, Chinese violet, **French**: Herbe le rail, mange-tout, herbe pistache, pistache marron, **Portuguese**: Asistasía branca, **Swahili**: Fuchwe, mtikini, kichwamangwo

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## Botany and Ecology

*Asystasia gangetica* (L.) T. Anderson: Perennial herb, with usually ascending, branched, quadrangular stem up to 2 m long, often rooting at the lower nodes. Leaves opposite, simple, stipules absent, petiole 0.5–6 cm long, blade ovate to lanceolate, 3–8(–13) cm × 1.5–4.5(–7) cm, base cuneate to cordate, apex acuminate or acute, margin entire, glabrous to sparsely pubescent, with 4–6 lateral veins at each side of the midrib, provided with cystoliths. Inflorescence a terminal raceme up to 25 cm long, with flowers directed to one side. Flowers bisexual, slightly zygomorphic, 5-merous, pedicel up to 3 mm long, calyx with lanceolate lobes 4–10 mm long, corolla funnel-shaped, up to about 2.5(–4) cm long, usually white with purplish spots inside lower lobe, with rounded lobes c. 1 cm wide, lower lobe slightly longer, stamens 4, 2 shorter and 2 longer, ovary superior, densely pubescent, 2-celled, style up to 1.5(–2) cm long, stigma with 2 short lobes. Fruit a club-shaped capsule 2–3 cm long, pubescent and glandular, usually 4-seeded. Seeds ovoid, flattened, 4–5 mm long, grey to brown, with crenate margins, tuberculate, supported by retinacula. Native in tropical Africa, Arabia, and tropical Asia, but has been introduced in many other tropical regions, where it often naturalized. It occurs throughout tropical Africa (Vollesen 2008) and is often found in *Croton* and *Vepris* dominated Afromontane forests (Bussmann 2002).

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## Local Medicinal Uses

*Asystasia gangetica*: Africa an infusion of the plant is used to ease pain during childbirth, and the sap is applied to sores, wounds, piles, and in embrocations to treat stiff neck and enlarged spleen in children. Powdered roots are considered analgesic and used in treating stomach-ache and snakebites. A leaf decoction is used as analgesic and to treat epilepsy and urethral discharge. In Nigeria, the leaves are used to treat asthma. In India, the sap is applied to swellings, it is also used as a vermifuge and to treat rheumatism. In the Moluccas (Indonesia) the juice, together with lime and onion juice, is recommended for dry coughs with an irritated throat and discomfort in the chest. Leaves crushed and boiled in water as anthelmintic (Kokwaro 2009). The leaves of *Asystasia schimperi* are used by the Nandi to treat cough and skin problems (Jeruto et al. 2008). In Ethiopia *Asystasia excellens* leaves are boiled and applied to wounds to stop bleeding (Yineger et al. 2008).

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## Local Food Uses

*Asystasia gangetica*: Locally used as a potherb and leafy vegetable, mainly in times of scarcity. In Kenya and Uganda, it is locally a popular vegetable, mixed with beans and groundnut or sesame paste. It is also often prepared in a mix with other leafy vegetables.

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## Local Handicraft and Other Uses

*Asystasia gangetica*: In Tanzania, plants are pounded with water to make a wash against fleas for young animals. Occasionally planted as an ornamental. Because of its ability to grow under shade and its nutritive value, used as a forage for cattle, goats and sheep in South-East Asia, it is either grazed or cut for stall feeding. Excessive consumption by sheep can result in bloat.

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## References

- Bussmann RW. Islands in the desert – forest vegetation of Kenya’s smaller mountains and highland areas Nyiru, Ndoto, Kulal, Marsabit, Loroghi, Ndare, Mukogodo, Porror, Mathews, Gakoe, Imenti, Ngaia, Nyambeni, Loita, Nguruman, Nairobi. J East Afr Nat Hist. 2002;91(1/2):27–79. Appendices 1–7 @ [www.naturekenya.org/JournalEANH.htm](http://www.naturekenya.org/JournalEANH.htm).
- Jeruto P, Lukhoba C, Ouma G, Otieno D, Mutai C. An ethnobotanical study of medicinal plants used by the Nandi people in Kenya. J Ethnopharmacol. 2008;116:370–6.
- Kokwaro JO. Medicinal plants of East Africa. Nairobi: University of Nairobi Press; 2009.
- Vollesen K. Flora of tropical East Africa: Acanthaceae (Part 1). Kew: Royal Botanic Gardens; 2008. 286 pp. ISBN 978-1-84246-217-1 [Fl. Trop. E. Africa, Acanth. (Part 1)].
- Yineger H, Kelbessa E, Bekele T, Lulekal E. Plants used in traditional management of human ailments at Bale Mountains National Park, Southeastern Ethiopia. J Med Plant Res. 2008;2(6):132–53.