

# A new species of *Arisaema* (Araceae) from South India

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**Summary.** *Arisaema muricaudatum*, a new species of Araceae from South India is described.

The genus *Arisaema* includes more than 200 species in fifteen sections distributed in Eastern Asia-the centre of distribution, Africa (Ethiopia), Eastern North America and Central America (Mexico). Members of the genus are mostly represented by dioecious taxa, sometimes monoecious with a bisexual spadix. Sexuality depends on the nutritional conditions and pistillate spadices usually are produced from larger corms and staminate-flowered spadices from smaller corms. Nakai (1936) proposed the term 'parodioicus' for such variable sexuality. As in most members of the family, species of *Arisaema* exhibit a great range of plasticity in all their features. During a detailed survey of aroids of South India, a new species that differs from all the species mentioned by Engler (1920) and later workers including Chatterjee (1959) was discovered.

***Arisaema muricaudatum*** Sivadasan sp. nov. Species proxima *Arisaema filiformi* (Reinw.) Bl., sed cormis instructa, foliolis sessilibus, et limbo spathae ad basim non auriculo differt. Typus: Kerala, Malappuram Dist., Nilambur Ghats, Thalichola, about 700m, 10 April 1981, Philip Mathew CU 28426 (holotypus K).

Cormous herbs; corms 2.5-3.5cm diameter, 1.5-3 cm thick. Leaf solitary; petiole 30-85cm long, 7-10mm diameter at the base, tapering to about 4-6mm at the tip, green to greenish with light greenish or rarely purplish mottling, sheathing to more than three-fourths the length; blade subpedate with 5-7 leaflets each 13-15 x 3-5cm, obovate to oblong acuminate. Cataphylls 3-4, varying in length to 36cm long, slightly narrowed to tip, tip acute with a recurved mucro. Inflorescence with peduncle 43-62cm long, base 8-10mm in diameter, apex 3-5mm diameter; spathe 13-19.5cm long with a basal convolute portion 4.5-6cm long and 1.25-1.75cm diameter, and an upper expanded, ovate to lanceolate-acuminate limb portion 8-13.5cm long; the basal portion green and the upper limb portion greenish with purplish tinge or light purplish; spadix usually bisexual, sometimes unisexual and then usually staminate, sessile, 22-34.5cm long, bisexual spadix differentiated into a basal pistillate portion about 1-3 cm long, an intermediate staminate portion about 1.5-2cm long, sometimes followed by neuter flowers, and an apical long-caudate appendix. Pistillate flowers numerous, loosely arranged, ovary green, ovoid, with 4-5 basal orthotropous ovules; style short, stout, conical; stigma capitate, subpapillose. Staminate flowers represented by many scattered groups of 4-6 ovate anthers borne on a short stalk, usually purplish or whitish-creamy, sometimes stalk creamy in colour and anther lobes purplish; dehiscence by lateral slits. Neuters usually absent, rarely a few small protuberances present representing neuters. Spadix-appendix erect for 1.5-2.5cm and then pendulous, long-caudate, about 25-30cm long, thicker near the base and narrowing to the tip, cream-coloured at the base and dark purplish beyond. In staminate spadices the basal 2.5-3cm is occupied by the staminate flowers. (Fig. 1).

**DISTRIBUTION.** Western Ghats of Kerala (South India).

**INDIA.** Kerala, Wynad Dist., Pookkot lake surroundings near Wythiri, 16 June 1976, Sivadasan CU 19015 19016 (CALI); *ibid.*, Sivadasan CU 19017 (CALI, US); Kerala, Palghat Dist., Manthampotti forest near Mukkali, 2 June 1977, Sivadasan CU 19195 (CALI, US); *ibid.*, 25 May 1978, Sivadasan CU 21428 (CALI); Calicut Dist., Forest between 1st and 2nd hair-pin turn on Adivaram-Wythiri road, 11 June 1979, Sivadasan CU 21466 (CALI).

FLOWERING. May-June. Fruiting specimens have not been collected but fruiting is expected during June-July.

The inflorescence of *Arisaema muricaudatum* Sivadasan resembles that of *Arisaema filiforme* (Reinw.) Blume (1837), a Javanese species, in the long, slender, hanging spadix-appendix. *Arisaema muricaudatum* has a cormous stem, sessile leaflets and a green spathe without auricular extensions at the base of the spathe-limb. In *Arisaema filiforme* the stem is horizontally rhizomatous, the leaflets are long-petioled, the spathe is green and white-striped and the limb is broadly auriculate at the base. *Arisaema muricaudatum* is also more or less related to *Arisaema tortuosum* (Wallich) Schott, which differs in having 2-3 distinctly pedate-lobed leaves and a sigmoid, erect spadix-appendix. The spadix-appendix resembles the tail (cauda) of a mouse (mus, muris).

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#### REFERENCES

- Blume, C. L. (1837). *Araceae*. *Rumphia* I,: 102.  
Chatterjee, D. (1959). Indian and Burmese species of *Arisaema*. *Bull. Bot. Soc. Bengal*. 8: 118-139.  
Engler, A. (1920). *Arisaema*. *Pflanzenr.* IV. 23F(73): 149-220.  
Nakai, T. (1936). *Iconographiae Plantarum Asiae Orientalis* 1(4): 65-66.

Fig 1. *Arisaema muricaudatum*.

- A habit
  - B spadix
  - C staminate flowers
  - D pistillate flower with a portion of ovary wall removed showing ovules.
- Drawn by author from CU 21466.

