

CONTRIBUTION TO THE FAMILY APONOGETONACEAE FROM PAKISTAN

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The family Aponogetonaceae has only one genus and about 45 species. It is widely distributed in the tropical and subtropical regions of the Old World (Lye, 1989). In some regions the tubers and in others the leaves are eaten. For instance *Aponogeton distychos* L. f. (known as cape pond weed, water hawthorn, cape Asparagus) is eaten like spinach or pickled. In Africa the plant is cultivated and the spikes are used in soups and stews. Through the import of about five species in Europe and United States of America for aquarium purposes, Srilanka and Madagascar are able to earn considerable foreign exchange (Bruggen, 1998; Mabberley, 2000).

Blatter, McCann & Sabnis (1927) reported *Aponogeton monostachyon* L. f. from Mirpur Sakro, Sind. To date this taxon has not been collected again in Pakistan. In view of this, a request for the loan of specimens was made to Dr. Mrs. S. M. Almeida, Director, Blatter Herbarium, St. Xavier's College, Bombay, India. Out of the five specimens that they had in the herbarium, she kindly loaned us two specimens, in spite of the fact that the specimens were not in good condition. As concluded by Gamble (1931), Subramanyam (1962) and Bruggen (1970), the correct name of our plant is *A. natans* (L.) Engler et Krause. The account of this taxon is therefore being published along with an illustration.

Aponogeton natans (L.) Engler et Krause, Pfl. R. Heft. 24: 22. 1906; Gamble, Fl. Pres. Madras 3: 1598. 1931; Bruggen in Blumea 18: 477. 1970; Subramanyam, Aquatic Angiosperms, Bot. Monogr. 3: 92. t. 54. 1962, C. S. I. R. India; J. K. Maheshwari, Fl. Delhi: 348. 1963; R. R. Stewart, Ann. Cat. Vasc. Pl. W. Pak. Kashm. 31. 1972; Pullaiah, Fl. Andhra Pradesh, 3: 1036. 1997 (Fig. 1).

Saururus natans L., Mant. Pl. 227. 1771

Aponogeton monostachyon L. f., Suppl. Pl. 214. 1781; Thunb., Nov. Gen. Pl. 73. 1781; Poir., Tabl. Encycl. 2: 409. t. 276. f. 1. 1793; Roxb. Coromandel Pl. 1: 58. t. 81. 1795; Roxb., Fl. Ind. Ed. Carey 2: 210. 1832; Hook. f., Fl. Brit. Ind. 6: 564. 1894; Cooke, Fl. Pres. Bomb. 3: 348. 1908; Blatter, McCann & Sabnis, in *J. Ind. Bot. Soc.*, 6: 73. 1927.

A submerged or floating, glabrous, stoloniferous aquatic herb. Tuber 2.0-3.5 cm long. Leaves oblong to lanceolate, 2-12 x 0.8-2.0 (-0.3) cm, base cuneate-cordate, tip obtuse to subacute, margin entire. Peduncle 10-45 cm. Spike 3-7 (-10) cm, usually dense flowered. Tepals 2, spatulate, 1.5-2 (-2.5) mm, white, pink or bluish. Stamens 6, 2.5-3.0 mm, anthers bluish purple. Ovaries 3, oblong, 1.5-2.0 mm, ovules $\pm$ 8, placentation basal. Fruit 4.0 mm, beak c. 1 mm. Seeds 1.5-2.0 mm.

Holotype: Koenig s.n, Herb. Linn. 479.1 (LINN), Isotype (UPS).

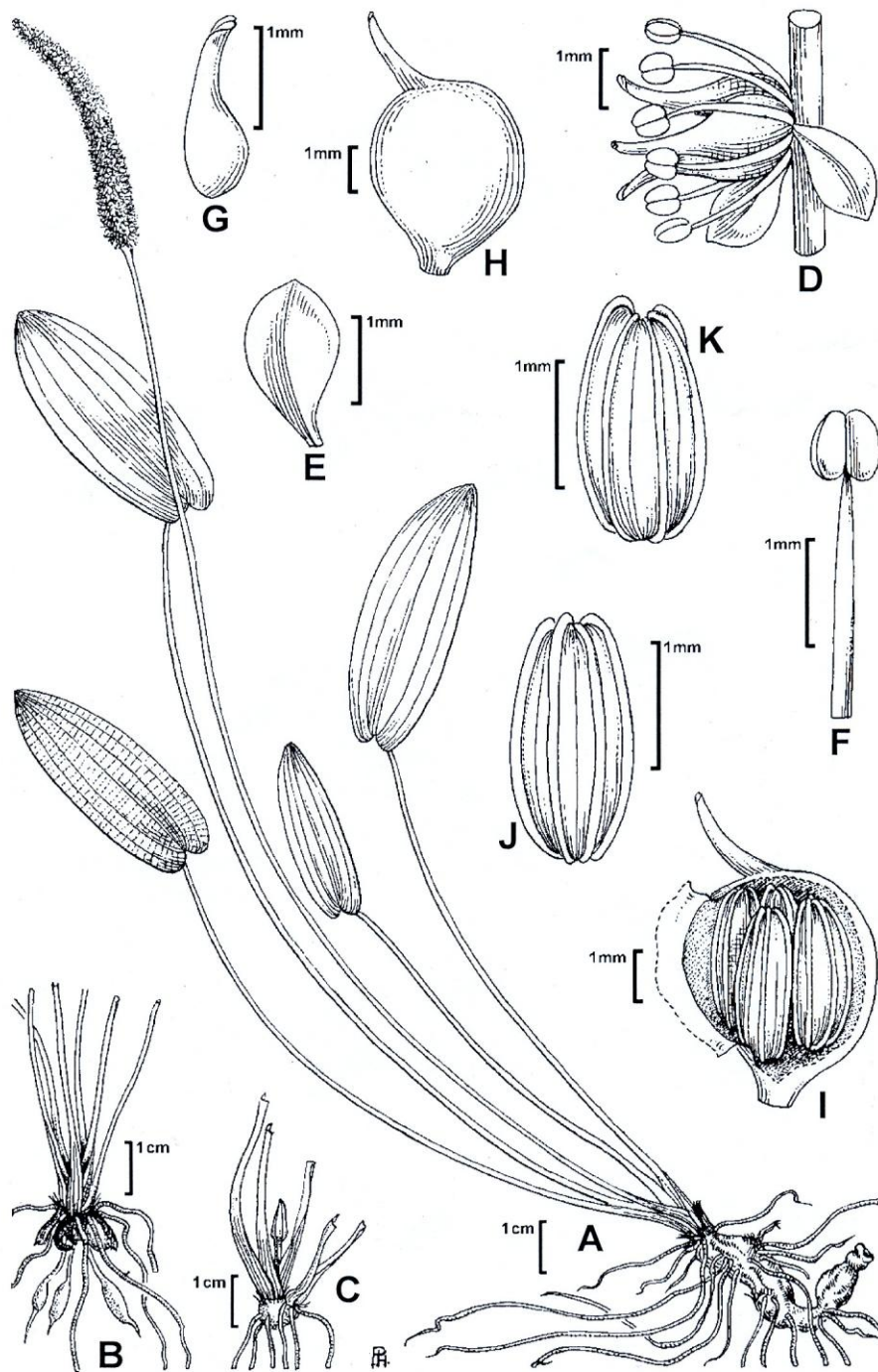


Fig. 1. *Aponogeton natans* (L.) Engler et Krause: A. Habit; B & C. Base of plant; D. Flower; E. Tepal; F. Stamen; G. Ovary; H. Young fruit; I. Fruit (opened to show seeds); J & K. Seeds.

G-5 Mirpur Sakro, Sind, October, 1922, *McCann* 4196 (BLAT); Mirpur Sakro, Sind, October, 1922, S. N. & S. I. (BLAT).

Distribution: Sri Lanka, India and Pakistan.

Widely distributed in India and Sri Lanka, seems rare in Pakistan or it is under collected.

Stagnant, shallow waters, rice fields, ponds, marshes (Bruggen, 1998).

Flowering period: June-February.

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