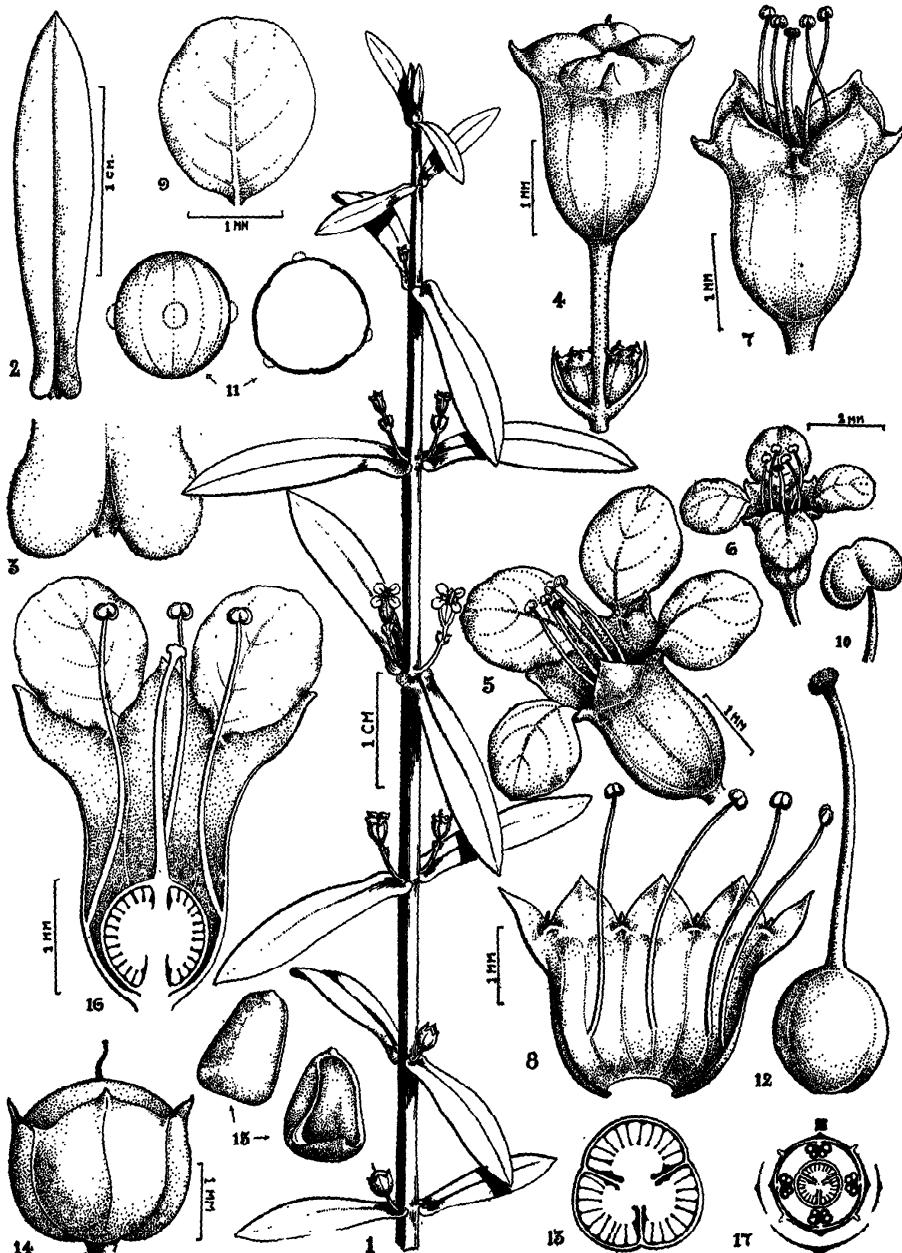


A NEW RECORD FOR *AMMANNIA AURICULATA* WILLD.  
(*A. SENEGALENSIS* LAMK.) FROM SOUTH INDIA

*Ammannia auriculata* Willd. (*A. senegalensis* Lamk.) is recorded by C. B. Clarke in Hooker's

Flora of British India as occurring in the 'plains of the Punjab and North-West Hindostan'. As far as



*Ammannia auriculata* Willd.

Figs. 1-17 : 1. Twig. 2. Leaf. 3. Leaf-base. 4. Inflorescence with buds. 5 & 6. Flowers. 7. Staminal cluster. 8. Hypanthium opened. 9. Petal. 10. Anther. 11. Pollen—side and apical view. 12. Gyroecium. 13. C. S. of ovary. 14. Fruit. 15. Seed—dorsal and ventral view. 16. V. S. of flower. 17. Floral diagram.

known to the author, it has not been recorded from South India. Two specimens of this species were collected from the campus of Government Brennen College, Tellicherry, Kerala, in September 1967. Species was identified at Kew (ref: H. 4387/67). Complete description and sketches given below, based on fresh specimen, may be useful for further studies on this species.

**Ammania auriculata** Willd.

Small, erect, annual herb growing on water logged soil. Stem slender, 4-angled, about 10 cm tall (Fig. 1). Leaves sub-sessile, simple, opposite and decussate, exstipulate, linear-oblong, about 2 cm long, 4 mm broad at middle, base narrower and auriculate (Fig. 3); apex acute; midrib as a narrow groove, veins indistinct. Inflorescence axillary, cymose (Fig. 4). Flowers pedicelled, hermaphrodite, actinomorphic and perigynous (Figs. 5 & 6). Pedicel slender, about 2 mm long; hypanthium about 2 mm long, campanulate with 8 vertical lines; accessory teeth 4, short, turned up (Fig. 7). Sepals 4, free, deltoid, greenish, persistent (Fig. 7). Petals 4, free, spreading, sub-orbicular, about 2 mm in diameter, pink, deciduous (Fig. 9). Stamens 4, free, exserted (Figs. 7 & 8); filaments

slender, pink, starting from near the base of hypanthium; anthers 2-celled, 4-lobed, semicircular, yellow (Fig. 10). Pollen yellowish, sub-spherical, smooth, with faint vertical lines and 3 germ pores (Fig. 11). Gynoecium superior (Fig. 12); ovary sub-spherical, pinkish, 3-celled with swollen axile placenta and many ovules in each cell (Fig. 13); style simple, stout, exserted, pinkish; stigma capitate, papillate, pinkish. Fruits sub-spherical, about 2 mm in diameter, brownish, partly exposed from chartaceous hypanthial cup showing 8 vertical lines; opening by operculum and splitting irregularly downward (Fig. 14). Seeds many, straw-coloured, excavated on ventral side (Fig. 15); exalbuinous; embryo ovoid, straight; cotyledons flat; radicle obtuse.

This species may be mistaken to be a form of *Ammania multiflora* Roxb. because of the close resemblance between the two, in leaves and flowers. But *Ammania auriculata* Willd. can be distinguished by the larger leaves, exserted stamens and style and the simpler inflorescence.

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A NEW SPECIES OF *FUIRENA* FROM GUJARAT, INDIA

***Fuirena tuvensis*** Deshpande & Shah sp. nov.

Herba perennis, rhizomatica, 15-60 cm alta; caulis simplex, leviter striatus, glaber vel fere glaber; internodia 4-15 cm longa. Folia 3-20.5 × 0.3-0.7 cm, linear-lanceolata, 3-5 nervia, supra glabra, infra pilosa, acuminata, ad basin vaginata, marginibus integris, parum incurvatis, pilosa; vaginæ 2-6 cm longae, pilosae, membrana annulari ad faucem instructæ. Rachis puberula; rachilla glabra. Spiculae 6-15 mm longae, oblongae, in fasciculos subpaniculatos axillares et terminales dispositæ. Bractæ 3-11 mm longae, membranaceæ, pilosæ, cuspidatae. Glumæ 2-3 mm longae, ovatae, vel cymbiformes, membranaceæ, brunneomaculatae, in dimidio superiori ad dorsum pubescentes, marginibus superne ciliatis, fortiter 3-nerviae, nervis in mucronem fortè plus minusve hispidulum conniventibus. Squamae hypogynæ 3, ± 1.5 mm longæ, petaloideæ, glabrae, unguiculatae, ad apicem obtusæ, ad basin subhastatae; setæ

hypogynæ 3, squamis breviores, cylindricæ, scabrae. Stamina 3; filamenta longiora squamis. Nux ± 1.5 mm longa, angulis acutis trigona, levis, breviter rostrata; stigmata 3, stylo breviora, pilosa.

Typus, Deshpande 1726, lectus ad Tuwa in partibus orientalibus Gujarat, 23.10.1966 et positus in herbario universitatis Sardar Patel, Vallabh Vidyanagar.

***Fuirena tuvensis*** Deshpande & Shah sp. nov.

Perennial herbs, rhizomatous, 15-60 cm tall; stem simple, faintly striate, glabrous or nearly so; internodes 4-15 cm long. Leaves 3-20.5 × 0.3-0.7 cm, linear-lanceolate, 3-5-nerved, glabrous above, hairy beneath, acuminate, sheathing at base; margins entire, slightly incurved, hairy; sheaths 2-6 cm long, hairy, with annular membrane at the mouth. Rachis puberulous, rachilla glabrous. Spikelets 6-15 mm long, oblong, in axillary and terminal subpaniculate clusters. Bracts 3-11 mm long, membranous, hairy,