

known to the author, it has not been recorded from South India. Two specimens of this species were collected from the campus of Government Brcmen College, Tellicherry, Kerala, in September 1967. Species was identified as Kew (ref: H. 4337/67). Complete description and sketches given below, based on fresh specimens, may be useful for further studies on this species.

#### *Ammania auriculata* Willd.

Small, erect, annual herb growing on water logged soil. Stem slender, 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. 2); 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; hypandrium 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, exerted (Figs. 7 & 8); filaments

slender, pink, starting from near the base of hypandrium; anthers 4-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, exerted, 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); exalbuminous; embryo svoid, 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, exerted stamens and style and the simpler inflorescence.

R. VASUDHARAN NAIR

Govt. Women College, Tirunelveli

### A NEW SPECIES OF *Fuirena* FROM GUJARAT, INDIA

#### *Fuirena tuwensis* Deshpande & Shali sp. nov.

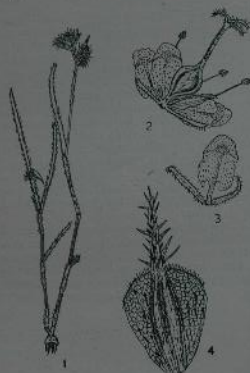
Herba perennis, rhizomatosa, 15-60 cm alta; caulis simplex, leviter striatus, glaber vel hirs glaber; internodia 4-15 cm longa. Folia 3.2-5.7 x 0.5-0.7 cm, lineari-lanceolata, 3-5 nervia, supra glabra, infra pilosa, acuminata, ad basin vaginata, marginibus integris, parum incurvatis, pilosis; vaginae 2-6 cm longae, pilosae, membrana annulari ad faucem instructae. Rachis pubescentia; rachilla glabra. Spiculae 6-15 mm longae, oblongae, in fasciculos subpaniculatos axillares et terminales dispositae. Bracteae 3-11 mm longae, membranaceae, pilosae, cuspidatae. Glumae 2-3 mm longae, ovatae, vel cyathiformes, membranaceae, brunneopunctatae, in dimidia superiori ad dorsum pubescentes, marginibus superne ciliatis, fortiter 3-nervi, nervis in mucronem fortem plus minusve bipolulum convexitibus. Squamae hypogynae 3-4 x 5 mm longae, petaloidae, glabrae, unguiculatae, ad apicem obtusae, ad basin sublaevatae; setae

hypogynae 3, squamis breviores, cylindricae, scabrae. Stamina 3; filamenta longiora squamis. Nux 1-1.5 mm longae, angulis acutis, trigonae, leviter breviter rostrata; stigma 3, cyclo breviora, pilosa.

Typus, Deshpande 1736, lectus ad Tuwa in partibus orientibus Gujarat, 23.10.1966 et positus in herbario universitatis Saadar Patel, Vallabh Vidyanagar.

#### *Fuirena tuwensis* Deshpande & Shali sp. nov.

Perennial herb, rhizomatous, 15-60 cm tall; stem simple, faintly striate, glabrous or nearly so; internodes 4-15 cm long. Leaves 3.2-5.7 x 0.5-0.7 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 pubescent, rachilla glabrous. Spikelets 6-15 mm long, oblong, in axillary and terminal subpaniculate clusters. Bracts 3-11 mm long, membranous, hairy,



*Favea aurora* Deshpande & Shih

Figs. 1-4: 1. Entire plant (Nat. size). 2. Dissected flower ( $\times 42$ ). 3. A petaloid scale with two hypogynous bracts ( $\times 42$ ). 4. A glume ( $\times 42$ ).

cuspidate. Glumes 2-3 mm long, obovate or cylindrical-membranous, spotted brown, pubescent in upper half on back and with ciliate upper margins, strongly 3-nerved, nerves ending into a strong, more or less hispidulous mucro. Hypogynous scales 3,  $\pm$  1.5 mm long, petaloid, back-lanceolate-shaped, glabrous, clawed, obtuse at apex, subobovate at base; hypogynous bristles 3, shorter than the scales, cylindrical, scabrid. Stamens 3; filaments longer than the scales. Nut  $\pm$  1.5 mm long, trigonous with acute angles, smooth, shortly beaked; stigmas 3, shorter than style, hairy.

Occasional among grasses growing in association of *Cyperus deformis* L. and *Fuirena ciliaris* (L.) Roxb. in moist ground along margins of ditches by the road sides. The type, *Deshpande* 1725, was collected from Tawa, Eastern Gujarat, on 25.10.1966. It is kept in the herbarium of Sardar Patel University, Vallabh Vidyanagar. This species differs from other *Favea* sp. in having peculiar hypogynous scales.

#### ACKNOWLEDGEMENTS

The authors are deeply thankful to Mr. J. H. Kern, Rijksherbarium, Leiden, for critically going through the manuscript and offering most valuable suggestions. Thanks are also to Dr. H. Sartiapa, for Latin diagnosis.

M. B. DESHPANDE AND G. L. SHIH

Sardar Patel University, Vallabh Vidyanagar

#### NOTES ON THE OCCURRENCE OF *CLERODENDRUM PANICULATUM* LINN. AND *TRIALS STOCKSII* BENTH. EX HOOK. F. IN SOUTH INDIA

In the course of botanical exploration of Peechade hills, Kottayam District, Kerala State during 1964-65, *Clerodendrum paniculatum* (Verbenaceae) and *Trialis stocksii* (Orchidaceae) were collected. There is no record of the occurrence of the former in South India and the latter has not been reported by Gamble in his *Flora of the Presidency of Madras*. The determination of the two species was confirmed in the Central National Herbarium, Calcutta (CAL) and the specimens are deposited in the Herbarium of the Botanical Survey of India, Southern Circle, Coimbatore (MH).

*Clerodendrum paniculatum* Linn. Mant. 1: 90.  
1767; C. B. Cl. in Hook. f. Fl. Brit. India 4: 593.

1885; Brand. Ind. Trees 508, 1921.

Shrub 1-2 m. Leaves opposite, ovate, 3-5 lobed, cordate at base, margins denticulate, sparsely hairy above, glabrous beneath with many prominent round glands; petioles connected by a dense ring of hairs. Cyaxes in terminal panicles, lax, pyramidal, red, leafy below. Bracteoles linear. Calyx divided nearly to the base; teeth narrowly oblong. Corolla red, pubescent; tube slender. Stamens long, exserted. Drupe not seen.

Among the species of *Clerodendrum* (Burm. ex) Linn. reported from South India this comes near to *C. pelanthes* (Lour.) A. Meisne (*C. vicinum* Vent.) but differs from it in having leaves ovate, 3-5 lobed with prominent round glands beneath;