# A NEW SPECIES OF IXORA FROM BURMA 

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Ixora keenanii Deb \& Rout (Rubiaceae) is described as a new species from Kachin State, Burma.

In the course of taxonomic revision of Indian Ixora L., some specimens on loan from E proved to represent a new species which is here described and illustrated.

Ixora keenanii Deb \& Rout sp. nov. Fig. 1.
Differt ab I. kachinensis Deb et Rout in cymis corymbosis; bracteolis longioribus; calycis dentibus longioribus, oblongis vel oblongo-lanceolatis; corolla-tubis brachyatis; filamentis longioribus, crassis, inter alia et I. birmahica Bremek. in bracteolis longioribus; calycis dentibus longioribus, oblongis vel oblongo-lanceolatis; corolla-lobis oblongis; filamentis longioribus, crassis; fructibus magnis; seminibus oblongis inter alia.
Type. Burma: Kachin State, Sumprabum, eastern side of Janrawng Bum, Hpuginhka river side, $1800-2100 \mathrm{~m}, \mathrm{i} 1962$, J. Keenan, U. T. Aung \& U.T. Hla 3216A (holo. E).

Shrub 1.5-2.4m high, erect, branched; stem slender, terete, glabrous. Leaves opposite, decussate, petiolate, $5-17.5 \times 1.2-5.5 \mathrm{~cm}$, elliptic, oblong or lanceolate, rarely oblanceolate, acute or acuminate at apex, cuneate or acute at base, coriaceous, glabrous; midrib canaliculate above; lateral nerves 10-15 pair, slender, depressed above, more prominent beneath. Petiole $0.5-1.0 \mathrm{~cm}$, stout, canaliculate above, glabrous. Stipules persistent, interpetiolar, triangular, $4-10 \times 2-4 \mathrm{~mm}$, cuspidate with cusps $3-7 \mathrm{~mm}$, coriaceous, glabrous with colleters within. Inflorescence terminal, sessile or subsessile corymbose cymes, $2.5-5.0 \mathrm{~cm}$ across, puberulous; peduncles up to 0.3 cm , puberulous. Bracts $4-7$ $\times 1-3 \mathrm{~mm}$, puberulous. Bracteoles 2 at the base of hypanthium, $3.5-5.5 \times 0.5-0.8 \mathrm{~mm}$, narrowly lancolate, puberulous. Flowers red or purple red (as mentioned in the field notes), $30-60$, subsessile, 4 -merous; pedicels up to 1.5 mm , stout, puberulous. Hypanthium c. $1.0 \times 1.0 \mathrm{~mm}$, obovoid, glabrous. Limb tube c. $0.2 \times 1.2 \mathrm{~mm}$, broader above, puberulous; lobes $4,5-7 \times 1.3-1.8 \mathrm{~mm}$, oblong or oblong-lanceolate, acute at apex, puberulous. Corolla tube $6-7 \mathrm{~mm}$ long c. 1 mm across, cylindrical, glabrous; lobes 4, 6-7 $\times 2.2-3.0 \mathrm{~mm}$, oblong, acute or subacute at apex, glabrous. Stamens 4 at the throat of corolla; filaments $3-4 \mathrm{~mm}$, stout; anthers $3.5-4.0 \mathrm{~mm}$, dorsifixed above base, 2-lobed, acute at apex, sagittate at base, dehiscing longitudinally. Ovary c. $0.8 \times 0.8 \mathrm{~mm}, 2$-loculed with 1 pendulous ovule in each locule. Disc c. $0.5 \times 0.8 \mathrm{~mm}$, annular. Style $10-12 \mathrm{~mm}$, slender, glabrous. Stigma 2 lobed, lobes $1-1.5 \mathrm{~mm}$, puberulous. Drupes $13-15 \mathrm{~mm}$ long, $8-10 \mathrm{~mm}$ across, ellipsoid, red (as mentioned in the field notes), black when dry,

[^0]glabrous, with persistent calyx, 1 -seeded. Seeds c. $11 \times 5 \mathrm{~mm}$, oblong, adaxially excavated, with cartilaginous endosperm. Embryo c. 10 mm , with two equal foliaceous reniform cotyledons cordate at base, rounded at apex, c. $5 \times 6 \mathrm{~mm}$, and with minute plumule and radicle c.5mm, stout. Fl. Jan.-Feb.; fr. Jan.-Mar.
Mixed evergreen and deciduous forests, $1200-1800 \mathrm{~m}$.


Fig. 1. Ixora keenanii. A, Habit; B, Calyx; C, Bracteole; D, Corolla split open showing floral parts; E, Placentation; F, Fruit; G. \& H. Adaxial and abaxial view of seed, position of embryo indicated in H; J, Embryo. A-E, from J. Keenan et al. 3216; F-J, from J. Keenan et al. 3777. Drawn by R. C. Rout.

BURMA. Kachin State, Sumprabum subdivision: Kanal Bum, 1800-2100m, 18 i 1962, J. Keenan, U. T. Aung \& U. T. Hla 3295, 3306 (E); between Ning W' Krok and Mapi Zup, 1500-1800m, 19 i 1962, J. Keenan, U. T. Aung \& U.T. Hla 3326 (E); east of Hpuginkhu village, 1200m, 19 ii 1962, J. Keenan, U. T. Aung \& U. T. Hla 3644 (E); 1500 m , ii 1962, J. Keenan, U. T. Aung \& U.T. Hla 3699 (E); 1350m, iii 1962, J. Keenan, U. T. Aung \& U.T. Hla 3777 (E).

Ixora keenanii is similar in many respects to I. kachinensis and I. birmahica; the diagnostic features are compared below.

Table 1. Comparison of Ixora keenanii, I. kachinensis and I. birmahica

|  | I. keenanii | I. kachinensis | I. birmahica |
| :---: | :---: | :---: | :---: |
| Inflorescence: | Sessile or subsessile corymbose cymes $2.5-5 \mathrm{~cm}$ across, puberulous; penducles up to 0.3 cm ; flowers 30-60 | Sessile or subsessile brachiate cymes $10-17 \mathrm{~cm}$ across, puberulous; peduncles up to 0.2 cm ; flowers 200-300, congested | Penduncled corymbose cymes, $7.5-8 \mathrm{~cm}$ across, puberulous; peduncles $0.7-1 \mathrm{~cm}$; flowers 41-60 |
| Bracteoles: | $3.5-5.5 \times 0.5-0.8 \mathrm{~mm}$, narrowly lanceolate, acuminate at apex, puberulous | $1-2 \times 0.2-0.5 \mathrm{~mm}$, narrow - <br> ly lanceolate, acute or acuminate at apex, puberulous | c. $1 \times 0.4 \mathrm{~mm}$, lanceolate, acute at apex, puberulous |
| Calyx Teeth: | $5-7 \times 1.3-1.8 \mathrm{~mm}$, oblong or oblong-lanceolate, acute at apex, puberulous on both sides | $1-1.2 \times 0.4-1 \mathrm{~mm}$, triangular, acute or acuminate at apex, puberulous on both sides | $1-1.3 \times 0.4-0.5 \mathrm{~mm}$, narrowly triangular, acute at apex, puberulous outside, glabrous within |
| Corolla tube: | $6-7 \mathrm{~mm}$ long, $c .1 \mathrm{~mm}$ across | $13-25 \mathrm{~mm}$ long, $0.5-1 \mathrm{~mm}$ actoss | $23-30 \mathrm{~mm}$ long, <br> $0.8-1.2 \mathrm{~mm}$ across |
| Corolla lobes: | $6-7 \times 2.2-3 \mathrm{~mm}$, oblong, acute or subacute at apex | $4-5 \times 1.5-1.8 \mathrm{~mm}$, oblong, acute at apex | $4-5 \times 2.5 \mathrm{~mm}$ <br> ovate-lanceolate, acute at apex |
| Filaments: | 3-4mm, stout | c. 1.5 mm , stout | c. 1.2 mm , slender |
| Fruits: | Drupes $13-15 \mathrm{~mm}$ long, 8 10 mm across, ellipsoid, with large persistent calyx teeth | - | Drupes c. $10 \times 7 \mathrm{~mm}$, ellipsoid, with minute persistent calyx teeth |
| Seeds: | c. $11 \times 5 \mathrm{~mm}$, oblong | - | c. $9 \times 6 \mathrm{~mm}$, obovoid |

The species is named after one of the collectors, the late James Keenan, who was a botanist on the staff of the Royal Botanic Garden Edinburgh for nearly 30 years and spent one year (1961-2) carrying out fieldwork in Burma.

## ACKNOWLEDGEMENTS

The authors are grateful to the Regius Keeper, Royal Botanic Garden, Edinburgh for loan of spcimens, which yielded this species. Thanks are also due to the Director, Botanical Survey of India, Calcutta for award of a Senior Research Fellowhsip to one of them (R.C.R.) and the authorities of the Central National Herbarium, Calcutta for facilities to carry on the study.


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