NEW RECORD OF SOME CYPERACEAE TAXA IN INDIA

By
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This paper presents one new combination, i.e., Fimbristylis falcata (Vahl) Kunth var. latifolia (Kunth) Naithani et Raizada and new records of 13 taxa of family Cyperaceae in India viz. (1) Cyperus melastoepermus (Nees) Vaill. Sur., known from Nilgiri, Tamilnadu, Panchmarhi, Madhya Pradesh (Clarke, 1889), Panhagani, Maharashtra (Batte and McCann, 1934), Travancore, Kerala (Kukenthal, 1936), is now a new record for Orissa from Kalahandi; (2) Cyperus pulchellus R. Br., reported from Tamilnadu, Karnataka, Konkan (Kern, 1854) and Madhya Pradesh (Saxena, 1973) is now being reported for Orissa from Sambhalpur and Gujarat from Chota Udaipur; (3) Cyperus sanguinolentus Vahl spp. melastoepermus (Miq.) Kern, so known only from Eastern India i.e. Sikkim and Khosi Hills (Kern, 1854) is now being reported as a new record for North India from Shimla, Kashmir, (4) Cyperus unioloides R. Br., so far reported from Assam, Nilgiri Hills, Tamilnadu (Clarke, 1889) and Dehra Dun, Uttar Pradesh (Som Deva and Naithani, 1974) is now a new record for Central India from Baidudia, Bastar, Madhya Pradesh; (5) Fimbristylis foliata (Vahl) Kunth var. latifolia (Kunth) Naithani and Raizada comb. nov., so known so far only from Tamilnadu, South India (Clarke, 1898) is now a new record for North India from Dhirassu, Tehri Garhwal, Uttar Pradesh; (6) Fimbristylis pirosti Miq., so far known only from North West Himalaya i.e. Simla and Kumaon (Clarke, 1898) is now a new record for Orissa from Koraput; (7) Fimbristylis sabundia (Nees) Kunth, so known so far from Bengal and Assam (Clarke, 1898) is now being reported new for Central India from Baidudia, Bastar and Jashpur, Madhya Pradesh; (8) Fimbristylis sieberiana Kunth, so far known only from Gujarat State (Shah and Surayanaryana, 1969 and Shah & Yogi, 1974) is now being reported from North India : Saharanpur and Dehra Dun, Uttar Pradesh, Ajut Sugar, Rajasthan, South India : Nagpur, Maharashtra and Kurnool, Tamilnadu, (9) Fimbristylis stolonifera Clarke, so known so far only from Khasi Hills and Madiup, Assam (Clarke, 1898) is now a new record for Central India from Surguja (Ambikapur) Madhya Pradesh; (10) Fimbristylis vetata R. Br., known from Kodaikanal, Tamilnadu (Govindarajan, 1974) and Salt Lake, Calcutta (Korahalil, 1937) is now a new record for Karnataka from Biligirirangan Hills, (11) Scirpus biflorus Roxb., known from Bengal (Clarke, 1898), Konkan and North Kanara (Batte and McCann, 1935), Orissa (Raizada, 1949), Dehra Dun, Uttar Pradesh (Saxena, 1967) is now a new record for Madhya Pradesh from Sagar; (12) Scirpus corymbosus Roxb., known from Khasi Hills, Tamilnadu and Maharashtra (Clarke, 1898), Andhra Pradesh, Malabar and Travancore, Kerala (Batte and McCann, 1935) is now a new record for North India from Bahraich, Uttar Pradesh; (13) Scirpus reusco R. Br., recently reported from Madhya Pradesh i.e. from Jagadalpur, Bastar (Govindarajan, 1972; Sahni et al 1972) is now being reported for Orissa from Sambhalpur.

2. Formerly Chief Research Officer, Botany Branch, and Head, Division of Forest Botany and Professor Emeritus, Forest Research Institute and Colleges, New Forest, Dehra Dun.
Notes on synonymy, description, distribution and distinction from allied species are provided. Species are arranged alphabetically. All specimens quoted are deposited in the Dehra Dun Herbarium (DD).


Perennial with creeping rhizomes. Stems 0.35—1.5 m high, triquetrod. Leaves shortly to rather long-laminate, or reduced to membranous purplish sheaths. Inflorescence very dense 10—12×3—6 mm. Inflorescense bracts 3, up to 20 cm. Spikelets numerous, oblong-elliptic, 3—4.5 mm long. Glumes hyaline, ovate-lanceolate or elliptic-ovate, 1st and 2nd small, 3rd 2.5—3.5 mm with 3—4 nerves, 4th 3—4 mm with 2—nervous. Stigmas 3. Nut biconvex, oblong ovate, brown to black, 1.5—2 mm long.

This species is known from Nilgiri, Tamilnadu, Panchmarhi, Madhya Pradesh (Clarke, 1898); Panchgini, Maharashtra (Blatter & McCann, 1934); Trivancore, Kerala (Kukenthal, 1933).

New Record for Orissa

Specimen examined:—28 December, 1939. Kalabandi, H.F. Mooney 1235 !

Distribution:—India (Madhya Pradesh, Tamilnadu, Karnataka, W. Ghats), Ceylon, Tropical and Sub-tropical Africa and Malasia.


Perennial with short rhizome. Stems slender 10—20 cm high. Leaves 1—2, almost setaceous, smooth or scaberulous at tip. Inflorescence a single, globose, white or pale head. Involucral bracts 3, up to 10 cm. Spikelets numerous, ovate, compressed, 8—12—flowered. Glumes membranous, hyaline, 1 mm long, elliptic-oblong, obtuse, 3—nerved. Stigmas 1. Nut trigonous, obovoid-oblong, yellowish to fuscous, 0.5—0.9 mm long.

Clarke (1893) and Kukenthal (1936) treated C. leucocephalus Retz. as synonym of C. pulchellus R. Br. Kern (1954) treated C. leucocephalus Retz. and C. pulchellus R. Br. specifically distinct. C. pulchellus R. Br. can be distinguished by the
characters given below:

<table>
<thead>
<tr>
<th>Cyperus pulchellus R. Br.</th>
<th>Cyperus leucocephalus Retz.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inflorescence globose</td>
<td>1. Inflorescence semiglobose.</td>
</tr>
<tr>
<td>2. Involucral bracts 3.</td>
<td>2. Involucral bracts 2.</td>
</tr>
<tr>
<td>3. Spikelets 1.5-2 mm broad,</td>
<td>3. Spikelets 3-4 mm broad,</td>
</tr>
<tr>
<td>4. Glumes short, 1 mm long, 3-nerved, apex obtuse.</td>
<td>4. Glumes large, 2.5 mm long, 5-nerved, apex semidenticulate.</td>
</tr>
<tr>
<td>5. Nut small, 0.5-0.9 mm long, yellow to fuscous.</td>
<td>5. Nut large, 1.5-1.7 mm, black when ripe.</td>
</tr>
</tbody>
</table>

Recently Chavan & Sabnis (1959) reported the occurrence of C. leucocephalus Retz. from Chota Udaipur and Devgadh, Gujarat. A critical examination of Sabnis collection C. 81, collected from Chota Udaipur, available in Dehra Dun Herbarium proved that it is C. pulchellus R. Br. and not C. leucocephalus Retz.

This species in India is so far known only from Bengal, South India i.e. Tamilnadu, Karnataka, Kanara, Konkan (Kern, 1934) and Madhya Pradesh (Saxena, 1973).

New record to Orissa and Gujarat:

*Specimen examined:* — Orissa: 2 July, 1949, Motigharan Hills, Sambalpur, H. F. Mooney 3451!

Gujarat: 27 July, 1958, Chota Udaipur, S. D. Sabnis C. 81!

*Distribution:* — India (Tamilnadu, Karnataka, Kanara, Konkan, Bengal, Madhya Pradesh, Orissa and Gujarat), Tropical Africa, Malaya and Australia.


Annual or perennial. Stems very slender, often short. Leaves narrow. 1-1.5 mm wide. Inflorescence capitate, pauci-spicate with 3-9 spikelets. Involucral bracts 2-3, the lower one usually erect or obliquely erect. Spikelets 2.7-3.5 mm wide. Glumes 2.2-2.5 mm long, without depression, dark castaneous to almost black except for a pale keel and narrow but distinct whitish hyaline margins. Stamens 2. Stigma 2. Nut 1.2-1.5 mm long.

*C. sanguinolentus* Vahl sp. *melanocephalus* (Miq.) Kern can be distinguished from *C. sanguinolentus* Vahl by the characters given below:

<table>
<thead>
<tr>
<th><em>C. sanguinolentus</em> Vahl sp. <em>melanocephalus</em> (Miq.) Kern</th>
<th><em>C. sanguinolentus</em> Vahl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inflorescence capitate, pauci-spicate.</td>
<td>1. Inflorescence contracted or capitate.</td>
</tr>
<tr>
<td>2. Lower involucral bract erect or obliquely erect.</td>
<td>2. Lower involucral bract not erect.</td>
</tr>
<tr>
<td>3. Glumes usually dark castaneous to black except keel and narrow, distinct whitish hyaline margin.</td>
<td>3. Glumes distinctly depressed on both sides with sanguineous bands.</td>
</tr>
</tbody>
</table>

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The distribution of this sub-species in India is only from the East i.e. Sikkim and Khasi Hills, at high altitudes, 1,000 m upwards.

**New record for North India**

*Specimen examined:*—20 September, 1940, Simbudra (Kashmir), *Range Officer* 191.

*Distribution:*—India (Sikkim, Khasi Hills and Kashmir), Java, Philippine and New Guinea.


Annual or perennial with short rhizome. Stems tufted, traicepses, 30-90 cm. Leaves half or two third as long as stem, flat. Inflorescence simple, 3-7×6-9 cm. Inflorescent bracts 2-4 up to 20 cm. Spikelets oblong-lanceolate, compressed, 10-20 flowered, yellow or reddish brown, 1.2-1.7 cm long. Glumes ovate-oblong, 3.7-4 mm long, usually mucronate, 3-nerved. Stamen 3. Stigma 2. Nut biconvex, laterally compressed, elliptico-ovate, shining black, 1.1-1.5 mm long, epidermal cell isodimetric.

*C. unioloides* R. Br. closely resembles *C. diphasus* Sch. var. *latospicatus* (Boeck.) Kern syn. *C. latospicatus* Boeck., but can easily be distinguished from this species by the following characters:

<table>
<thead>
<tr>
<th>C. unioloides R. Br.</th>
<th>O. diphasus Sch. var. <em>latospicatus</em> (Boeck.) Kern</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Glumes 3.7-4×2.5-3 mm</td>
<td>1. Glumes 3×1.7–2 mm.</td>
</tr>
<tr>
<td>2. Stamen 3.</td>
<td>2. Stamen 2.</td>
</tr>
<tr>
<td>3. Nut the epidermal cells isodimetric.</td>
<td>3. Nut rugulose with transverse wavy lines, epidermal cells longitudinally oblong.</td>
</tr>
</tbody>
</table>

In India the species is known so far from Khasi Hills, Nilgiri, Tamilnadu (Clarke, 1898) and Dehra Dun, Uttar Pradesh (Som Deva & Naithani, 1974).

**New record for Central India**

*Specimen examined:*—9 October, 1940, Bailandla (Bastar), Madhya Pradesh, H F. Mooney 1529.

*Distribution:*—India (Assam, Tamilnadu, Uttar Pradesh and Madhya Pradesh) Pan tropical.

Perennial with woody rhizome. **Stems** solitary or some what tufted, angular, glabrous, 10-15 cm. **Leaves** shorter than stem, rigid, flat, curved or twisted, 1.25-2 x 0.3 cm, **Inflorescence** compound or decumbent, 3-15 cm long. **Involucral bracts** 2-4, short, lower one 2.5 cm. **Spikelets** in cluster or solitary, brown castaneous, ovoid, angular, 3-4 x 1.5 mm. **Glumes** spiral, triangular-ovate, acute, minutely apiculate, 3-nerved, 2-2.7 x 2-2.5 mm. **Stamens** 3. **Stigmas** 3. **Nut** trigonous, obovoid, minutely stipitate, unbonulate, verruculose or smooth, white, 1 mm, epidermal cells transversely oblong.

This variety differs from *F. falcata* (Vahl) Kunth by leaves being broader 1.25-2 x 0.3 cm, flat, curved and twisted, spikelets rather many (rarely all) solitary.

Kern (1855) treated *F. junciformis* Kunth as conspecific with *F. falcata* (Vahl) Kunth, and selected the later name as the correct one. Kern, however, did not transfer the variety *latifolia* (Kunth) Clarke from *F. junciformis* Kunth to *F. falcata* (Vahl) Kunth which is being done now.

This variety is endemic to South India i.e. Tamilnadu Peninsula (Clarke, 1898).

**New record for North India**

**Specimen examined:**—11 June, 1883, between Lalari and Dhairassu, Tehri Garhwal, Uttar Pradesh, J.F. Duthie 721

**Distribution:**—India: Tamilnadu and Tehri Garhwal.


Perennial with woody rhizomes. **Stems** solitary, 15-30 cm high, compressed and triqueterous. **Leaves** half the length of stem, flat or involuted. **Inflorescence** simple or sub-compound, 1.5-4 cm long. **Involucral bracts** very short about 1.5 cm. **Spikelets** solitary, ovoid-lanceolate, angular, 7-15 mm long; castaneous. **Glumes** spiral ovate, acute or obtuse, 3-nerved, 4-6 mm long. **Stamens** 3. **Stigmas** 3. **Nut** trigonous, broadly, obovoid shortly stipitate, verruculose, 1-1.5 mm long.

Its distribution in India is so far only from North West Himalaya (Clarke, 1898).

**New record for Orissa**

**Specimen examined:**—10th July 1950, Sirimanda Parbat, Koraput, H.F. Mooney 39321

**Distribution:**—India (Himachal Pradesh, Kumaon and Orissa), Japan, Korea and Philippines.

Fimbristyliis salbundia (Nees) Kunth is close to F. aphylla Steud. syn. F. quinquangularis (Vahl) Kunth var. crassa Clarke, and can be distinguished by the characters given in the following table.

<table>
<thead>
<tr>
<th>F. salbundia (Nees) Kunth</th>
<th>F. aphylla Steud.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Spikelets 3-5 x 2 mm, castaneous black.</td>
<td>1. Spikelets, 2.5-3.5 x 1.5-2 mm, brown.</td>
</tr>
<tr>
<td>2. Glumes keeled, 2 x 1.5 mm.</td>
<td>2. Glumes, scarcely keeled, 1.5 x 1 mm.</td>
</tr>
<tr>
<td>3. Stamens 3, 0.7-1 mm.</td>
<td>3. Stamens 2, 0.5 mm.</td>
</tr>
<tr>
<td>4. Nut not uniporate, smooth or sparsely verruculose, reticulate-lanceolate by transversely elliptic or oblong, epidermal cells 9-13, vertical rows on each face 0.8-0.9 x 0.6-0.7 mm.</td>
<td>4. Nut scarcely uniporate, densely verruculose, finely transversely lanceolate by the transversely linear epidermal cells in 4-6 vertical rows on each face 0.7 x 0.4-0.5 mm.</td>
</tr>
</tbody>
</table>

Regarding distribution also F. salbundia (Nees) Kunth is known from East India i.e. Bengal and Assam (Clarke, 1893 & 1898), while F. aphylla Steud. is from Nilgiri Hills, South India (Clarke, 1893 & 1898) and Dehra Dun, Uttar Pradesh, North India (Som Deva & Naithani, 1974).

**New record for Central India**

*Species examined:*—9th. October, 1940 Bailadila (Bastar), Madhya Pradesh, H. F. Mooney 15231.

September, 1941, Jashpur State, Madhya Pradesh, H. F. Mooney n.n.

**Distribution:**—India: (Bengal, Assam & Madhya Pradesh), Burma, N. Thailand, Annam and Malesia.


Clarke in Fl. Cap. 7: 201, 1898, referred F. sieberiana Kunth to the synonym of F. ferruginea (Linn.) Vahl. Kern (1955) treated F. ferruginea (Linn.) Vahl and F. sieberiana
Kunth, specifically distinct. *F. sieberiana* Kunth can be distinguished by the following characters:

<table>
<thead>
<tr>
<th><em>F. sieberiana</em> Kunth</th>
<th><em>F. ferruginea</em> (Linn.) Vahl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lower sheath stramineous to ferruginous.</td>
<td>1. Lower sheaths shining brown to castaneous.</td>
</tr>
<tr>
<td>2. Upper sheath pilose especially at the top some-times glabrous.</td>
<td>2. Upper sheath ciliolate at mouth, otherwise glabrous.</td>
</tr>
<tr>
<td>3. Blades of cauline leaves grass like, 35 cm long.</td>
<td>3. Blades of cauline leaves rigid, short, 2–10 cm long.</td>
</tr>
<tr>
<td>4. Involutural bracts usually overtopping the inflorescence upto 10 cm long.</td>
<td>4. Involutural bracts usually shorter than the inflorescence.</td>
</tr>
<tr>
<td>5. Spikelets obtuse.</td>
<td>5. Spikelets acute.</td>
</tr>
<tr>
<td>6. Glumes vary broadly ovate, densely tomentose in the apical part, castaneous, 3–4.5 mm long.</td>
<td>6. Glumes ovate-oblong, puberulous in the apical part, ferrugineous, 3–4 × 2.5–3 mm.</td>
</tr>
<tr>
<td>7. Style 0.4 mm wide.</td>
<td>7. Style 0.25 mm wide.</td>
</tr>
</tbody>
</table>

This species in India has so far been reported from Gujarat (Shah & Suryananaryana, 1969; Shah & Yogi, 1974).

**New record for North and South India**

*Specimen examined:*—North India: Saharanpur, Uttar Pradesh, Collan s.n.!
19th October, 1973, Nakronds, Dehra Dun. H. B. Naithani Ser. II. No. 66!
September, 1957, Ajit Sagar, Khetri (Rajasthan), K. K. Konodia 306!
South India: 16th August, 1960, Nagpur (Maharashtra), Mishra 556!
20th October, 1961, Nagpur (Maharashtra), Mishra 12!
March, 1883, Kurnool (Tamilnadu), J. S. Gamble 10888!

*Distribution:*—India (Gujarat, Rajasthan, Uttar Pradesh, Tamilnadu and Maharashtra), Madagascar, Mauritius, Syria, Arabia, Persia, Pakistan, Malesia, and Tropical Australia.


A stoloniferous sedge; stolon horizontally from the base of stem. *Stems* sub-solitary, 30–60 cm high. *Leaves* 15–40 cm long, hairy or glabrous, erect. *Inflorescence* compound or decompound. *Involutural bracts* 2–3, about 4 cm long. *Spikelets* dark chestnut 0.1–1 × 0.3 cm.
Glumes spiral, ovate to oblong-ovate, often mucronulate 2–3 × 2 mm. Stamens 1–3.
Stigmas 2. Nut biconvex, obovate, tuberculate, white, 1–0.7 mm.

_F. stolonifera_ C.B. Clarke is allied to _F. dichotoma_ (Linn.) Vahl, but differs in having stoloniferous rhizomes and dark chestnut spikelets. It is distributed only in Khasi Hills and Manipur (Clarke, 1898).

### New record for Central India

Specimen examined:—14 May 1940, Saranggobi, Surguja State (near Ambikapur), Madhya Pradesh, H. P. Mooney 13221

Distribution:—India (Khasi Hills, Manipur and Madhya Pradesh), Yunnan


Annual. Stems tufted, glabrous or smooth, 8–15 cm high, Leaves setaceous 5–10 cm × 0.5–0.6 mm. Inflorescence compound or decumbent. Involutural bracts 3–7, slightly longer than inflorescence, soft hairy. Spikelets 5–10, oblong-cylindric, glabrous, ferrugineous brown, 6 mm. Glumes ovate, brown, spiral, squarrose, 3–nerved, mucronate, 1.8–1.9 × 1–1.1 mm. Stamens 1. Style flat, hairy throughout, up to 1 mm long, base with long colourless pendent hairs, bifid. Nut obovoid, biconvex, shortly stipitate, minutely umbonate, smooth, outer cell of upper half transversely elongated, hexagonal, 13–15 regular vertical rows on each face, 0.8 × 0.5 mm, yellowish brown.

_F. velata_ R. Br. is closely related to _F. squarroso_ Vahl and can be distinguished as follows:

<table>
<thead>
<tr>
<th><em>F. velata</em> R. Br.</th>
<th><em>F. squarroso</em> Vahl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Involute bracts as long or slightly longer than inflorescence.</td>
<td>1. Involute bracts longer than inflorescence.</td>
</tr>
<tr>
<td>2. Spikelets oblong-cylindric, subacute, obtuse.</td>
<td>2. Spikelets ovate-elliptic, acute.</td>
</tr>
<tr>
<td>3. Glumes 1.1 mm, squarrose, ovate, broad, glabrous.</td>
<td>3. Glumes 0.6–0.7 mm, squarrose, elliptic-oblong, basi glume hairy.</td>
</tr>
<tr>
<td>4. Style with long pendent hairs; hairs extending upwards up to 0.7 mm of the length from style base.</td>
<td>4. Style with long pendent hairs; hairs almost covering entire nut confined to style base, style remains almost glabrous upward.</td>
</tr>
</tbody>
</table>
This species is also close to *F. aestivalis* (Retz.) Vahl and differs from it by long pendent hairs of style, which is very short or absent in *F. aestivalis* (Retz.) Vahl.

Govindarajulu (1974) states that this species is uncommon in India and seems to be restricted at Kodai Kanal, Tamilnadu. It has also been reported from Salt lake Calcutta, West Bengal (Koreshaballi, 1967).

**New record for Karnataka**

*Specimen examined:* — March-May, 1939, Biligirirangan Hills, E. Barnes n.v.,!

*Distribution:* — India (West Bengal, Tamilnadu, Karnataka), Thailand, Indo-China, N.E. and F. China, South Korea, Japan, Polynesia, Australia, Newzealand and Malaysia.


Annual. Stem slender, smooth, 15-75 cm high. Leaves glabrous or sparsely pilose. Inflorescence narrow, elongated, consisting of 2-4 panicles, terminal panicle 2-4 cm long, somewhat longer than the lateral ones. Spikelets either male or female or bisexual; male spikelets 3-4 mm long; stamens 2-3; female spike/ets obvoid, 4-5 mm long. Disk deeply 3-lobed; lobes half the length of nut, lanceolate, acute, gradually narrowed upward. Nut globose or slightly depressed, regularly cancellate, beaked with the black or purplish persistent style base, with 6 deep pits at the base (2 in each sinus of the disk-lobes), dull white, ferrugineous—pubescent on the walls between the lacunae, 2 mm across; lacunae deep square to broader than long.

*Scleria biflora* Roxb. is close to *S. tessellata* Willd., and can be distinguished by the following characters:

<table>
<thead>
<tr>
<th></th>
<th><em>S. biflora</em> Roxb.</th>
<th><em>S. tessellata</em> Willd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Disk lobes lanceolate, acute, half the length of nut.</td>
<td>1. Disk lobes obtuse, only at the base of nut.</td>
<td></td>
</tr>
<tr>
<td>2. Nut broadly globose, with purplish or blackish beak, dull white, ferrugineous—pubescent on the walls between the lacunae; lacunae deep, square to broader than long.</td>
<td>2. Nut broadly ellipsoid, mucronate, lacunae longitudinally elongate.</td>
<td></td>
</tr>
</tbody>
</table>

This species is so far known from Bengal (Clarke, 1894); Orissa (Raizada, 1949), Dehra Dun, Uttar Pradesh (Saxena, 1967; Som Deva and Naithani, 1974) and Bombay Presidency (Blatter and McCann, 1935).
Use:—In Java the very young fragrant plants are eaten with rice as kolab, either raw or steamed (Kern, 1961). The roots strongly smell of Camphor or Cajaput (Kern, 1961 and 1974).

New record for Madhya Pradesh

Specimen examined: 2 September 1952, Sanger, Madhya Pradesh L.C. Singhaj s.n.!

The above specimen is referable to sub-species biflora (Kern, 1961 and 74).

Distribution:—India (Bengal, Bombay, Uttar Pradesh, Madhya Pradesh, Orissa), Ceylon, South China, Formosa and Malaya.


Perennial with horizontal rhizomes. Stems often robust, erect, triquetrous, about 2 m high. Leaves rigid, glabrous, sub-coriaceous, 7-25 mm wide. Inflorescence often copious, up to 75 cm long, consisting of distant fascicles of panicles; lateral panicles 2-3 together at the nodes, rarely solitary, dense, decumbent, corymiform, with patent branches. Spikelets bisexual and male, stramineous or dark brown, sessile, 4-5 mm long; male spikelet lanceolate, stamens 3; bisexual spikelet broadly ovoid. Disk obsolete, reduced to a brown or reddish narrow, triangular, minutely glandular band. Nut ovoid, obtusely trigonous, with 3 shallow depressions at the base, acute, hardly or not unbonulate, shining, snow white, rarely somewhat discoloured, 3.3.5 x 2-2.5 mm.

This species is so far known from Khasi Hills, Tamilnadu, Karnataka (Clarke, 1898) and Andhra Pradesh, Travencore, Kerala (Fisheber, 1931 and Blatter and McCann, 1935).

New record for North India

Specimen examined: 25 September, 1918, Babraich, Uttar Pradesh, Sri Ram s.n.!

Distribution:—India (Assam, Tamilnadu, Karnataka, Andhra Pradesh, Kerala and Uttar Pradesh), Ceylon, South China and Malaya.

Animal with dark red roots. Stems slender, obliquely erect or decumbent, triquetraceous, hispid and leafy, 10–13 cm. Leaves densely pubescent with hispid hairs, 6–10 cm × 2–4 mm, tip obtuse. Inflorescence narrow, elongate, consisting of a terminal or pseudoterminal, short panicle. Spikelets uni-sexual; male spikelets short, 2 mm long, lanceolate; stamen 1, female spikelets, 3–4 mm long. Glumes triangular (ovate), acute hispid on the keel. Disk thick, appressed, shallowly 3-lobed, densely glandular, lobes obtuse, spreading semi-ornicular. Nut globose, shorter than glumes, apiculate, unobnitate, obscurely rugulose-lacunose in upper half, white, obscurely triloculate, smooth, marked by 3 dark bands and covered by dirty brown patches (when mature), 1–1.5 mm broad.

*S. rugosa* R. Br. is closely related to *S. thwaitesi ana* Boeck. and can be distinguished by the characters given in the following table:

<table>
<thead>
<tr>
<th><em>S. rugosa</em> R. Br.</th>
<th><em>S. thwaitesi ana</em> Boeck.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stem obliquely erect or decumbent.</td>
<td>1. Stem strictly erect.</td>
</tr>
<tr>
<td>2. Leaves 2–4 mm wide.</td>
<td>2. Leaves 1–2 mm wide.</td>
</tr>
<tr>
<td>3. Disk densely glandular, lobed.</td>
<td>3. Disk not glandular, hardly lobed.</td>
</tr>
<tr>
<td>4. Nut apiculate, smooth or more or less rugulose to lacunose specially on upper half, somewhat tuberculate at the top.</td>
<td>4. Nut obtusely trigonous, not or hardly apiculate, smooth or nearly so.</td>
</tr>
</tbody>
</table>

This species in India is so far known only from Jagdalpur, Bastar, Madhya Pradesh (Govindarajalu, 1972 & Sahni et al, 1972).

**New record for Orissa**

*Specimen examined:*—3 September 1948, Sambalpur (Motijharan forest), H. F. Mooney 3103 !

**Distribution:** India (Madhya Pradesh, Orissa), Ceylon, S. China, Formosa, Japan, N. & N. E. Australia, New Caledonia & Malasia.

**Acknowledgement**

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**SUMMARY**

The paper presents a new combination i.e. *Fimbristylis falcata* (Vahl) Kunth var. *latifolia* (Kunth) Naithani et Raizada and new records of 13 taxa of sedges (Cyperaceae) in India, viz. *Cyperus sanguinolentus* Vahl ssp. *melanecephalus* (Miq.) Kern, *Fimbristylis falcata* Kunth var. *latifolia* (Kunth) Naithani et Raizada comb nov., *Scleria corymbosa* Roxb. for North India; *Cyperus unioloides* R. Br., *Fimbristylis saubandia* (Nees) Kunth, *Fimbristylis stolonifera* C. B. Clarke for Central India; *Scleria*
biflora Roxb. for Madhya Pradesh; Cyperus melanosepalus (Nees) Valk-Sur.; Fimbristylis pterotii Miq.; Scleria rugosa R. Br. for Orissa; Cyperus paleehillii R. Br. for Orissa and Gujarat; Fimbristylis sieberiana Kunth for North & South, India and Fimbristylis velata R. Br. for Karanataka. Notes on synonymy, short description, distribution and distinction from allied species are provided, species are arranged alphabetically. All specimens quoted are deposited in Dehra Dun Herbarium (DD).

Neue Zeugnisse einiger cyperaceae Taxa vom Indien
H.B. Naithani und M.B. Raizada

ZUSAMMENFASSUNG

Nouvel enregistrement en Inde de quelques espèces de la famille des Cypéracées par H.B. Naithani et M.B. Raizada

Résumé

Cet article présente une nouvelle combinaison—Fimbristyli falcata (Vahl) Kunth var. latifolia (Kunth) Naithani et Raizada et un récit de 13 espèces suivantes de laches (Cypéracées) enregistrées en Inde:—Cyperus sanguinolentus Vahl ssp. melanocephalus (Miq.) Kern, Fimbristyli falcata Kunth var. latifolia (Kunth) Naithani et Raizada comb. nov., Scleria corymbosa Roxb. à l'Inde du Nord; Cyperus unioloides R. Br., Fimbristyli stolonifera C.B. Clarke à l'Inde Centrale; Scleria biflora Roxb. au Madhya Pradesh; Cyperus melanospermus (Nees) Valk-Sar, Fimbristyli picrotii Miq., Scleria rugosa R. Br. à l'Orissa et au Gujarat; Fimbristyli sieberiana Kunth à l'Inde du Nord et du sud et Fimbristyli velata R. Br. au Karnataka. L'article donne la synonymie, un court récit et la distribution des espèces qui ont également été distinguées des autres espèces alliées. Les espèces ont été disposées par ordre alphabétique et déposées dans l'herbier à Dehra Dun (DD).

Literature cited