Eria apertiflora Summerh. and E. bipunctata Lindl. (Orchidaceae),
New Records for the Nepal Himalaya

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Eria apertiflora Summerh. and E. bipunctata Lindl. (Orchidaceae) are reported as new to Nepal.

Key words: Eria, Flora of Nepal, Himalaya, Orchidaceae

The genus Eria Lindl. comprises about 370 species and is widely distributed in Asia, Africa and Asian-pacific. Eria spicata (D. Don) Hand.-Mazz. is widely distributed in the Himalayan region from Kumaon to Burma, whereas E. apertiflora Summerh. and E. bipunctata Lindl. are distributed in Sikkim, Assam, Khasia, Burma, and Thailand (Hooker 1890, Seidenfaden 1982). Despite of the wide distribution of E. apertiflora Summerh. and E. bipunctata Lindl. in the Himalayan region, these two species have not been recorded from the Nepal Himalaya (Hara et al. 1978, Banerjee & Pradhan 1984, Koba et al. 1999, Press et al. 2000). Now these species are recorded from Nepal Himalaya (Fig. 1).

Recently while revising the genus Eria Lindl. in the Himalayan region, number of herbarium specimens deposited in BM, K, E, KATH and TUCH herbaria, and materials collected from Ghodepani and Landruk, C. Nepal, were examined. Most of the Nepalese specimens of E. apertiflora Summerh. and E. bipunctata Lindl. were identified as E. spicata (D. Don) Hand-Mazz., because they were closely allied to each other. The specimens of Stainton, Sykes and Williams 6397 and 6474 (BM) both were also identified as E. spicata (D. Don) Hand.-Mazz. When closely examined, these materials are confirmed as E. bipunctata Lindl. and the materials collected from Landruk and Ghodepani, viz. Nepal CN0109 and 0121, have been confirmed as E. apertiflora Summerh. and E. bipunctata Lindl., respectively (Table 1). Here, revised descriptions are provided for the two Eria species, E. apertiflora and E. bipunctata, in considering Nepalese materials.

Eria apertiflora Summerh. in Kew Bull. 1929: 9 (1929); Seidenfaden in Opera Botanica 62: 123, fig. 74, pl. IXd (1982); 114: 191 (1992). [Fig. 2]

Epiphytic, 20–22 cm high. Pseudobulbs stem-like, slender, sympodial, 9.5–16 cm long, 4–6 nodes in pseudobulbs covered by leaf sheath. Leaf sheath 3, ovate, entire, acute, grayish green with white veins, abscission layer present. Leaves rolled around pseudobulbs, 4–5 in number, 13–16 cm × 2.8–3 cm, oblong-lanceolate, subcoriaceous, acute, with 9-veins. Scape 3–4 cm long, pubescent. Inflorescence 8–10 cm long, lateral, cylindrical, lax. Bracts 5–10 mm × 3 mm,
Fig. 1. *Eria apertiflora* Summerh. (○) and *E. bipunctata* Lindl. (△) in the Himalayan region.

Table 1. Comparison of characters among *Eria spicata*, *E. bipunctata* and *E. apertiflora*.

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<thead>
<tr>
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<tbody>
<tr>
<td>Height</td>
<td>28–30 cm</td>
<td>20–22 cm</td>
<td>20–22 cm</td>
</tr>
<tr>
<td>Pseudobulb</td>
<td>10 × 2 cm, long or spindle shaped</td>
<td>4–6.6 × 1.5–2 cm, fusiform, compressed</td>
<td>9.5–16 cm, slender shaped.</td>
</tr>
<tr>
<td>Leaves</td>
<td>Elliptic-lanceolate, plicate, acute, 7-veins</td>
<td>Lanceolate, acute, 9-veins</td>
<td>Lanceolate, acute, 9-veins</td>
</tr>
<tr>
<td>Inflorescence</td>
<td>Spicate, raceme densely packed in a usually globular or ovoid in short cylindrical</td>
<td>Lateral, axillary, cylindrical, raceme, lax and long</td>
<td>Lateral, cylindrical, raceme, lax</td>
</tr>
<tr>
<td>Bracts</td>
<td>Ovate-lanceolate, acute, indumetum absent</td>
<td>Lanceolate acuminated, scattered indument along the edge</td>
<td>Ovate, acute, indumetum absent</td>
</tr>
<tr>
<td>Flower</td>
<td>Yellowish with purple tints, sub-globose, small flower</td>
<td>Creamy white with yellow patch at the tip, small flower</td>
<td>White with yellow at the tip, large flower</td>
</tr>
<tr>
<td>Sepals</td>
<td>Ovate, obtuse, yellowish white, sometimes with light purple dots on the tip</td>
<td>Ovate, obtuse, yellowish white</td>
<td>Ovate, acute, white</td>
</tr>
<tr>
<td>Petals</td>
<td>Oblong, obtuse, membranous</td>
<td>Lanceolate, acute</td>
<td>Elliptic-lanceolate, obtuse</td>
</tr>
<tr>
<td>Labellum</td>
<td>Fan shaped, uniformly widening from the base, not bilobulate</td>
<td>Rhomboid, trilobed, terminal lobe round, fleshy, convex, apex sinus with growth, lateral lobe. Triangular/round, spreading narrow base, purplish tint, lip distally yellow</td>
<td>Rhomboid, obtuse, terminal lobe of the lip yellow rarely purple, wavy margin, lateral lobe triangular, terminal lobe rhomboid, short pointed, deflexed, bilobed, white with yellow at the tip of the lip</td>
</tr>
<tr>
<td>Stigmatic cavity</td>
<td>Cordate, prominent</td>
<td>Oval, not lobed</td>
<td>Cordate, lobed at the base</td>
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</table>
ovate, acute, shiny, white with yellow stripe. Flowers 3–5 mm long, ca. 7 mm when flattened, white with yellow at the tip of the lip. Dorsal sepal 3.5–6.5 (–8) mm × 2–3 mm, lanceolate-ovate, obtuse, thick white, with 3–veins. Lateral sepals 4–6 mm × 2 mm, oblique-ovate, subfalcate, acute, white, glabrous, entire. Mentum reflexed, concave, 3 mm long from the foot of column to its tip. Petals ca. 3 × 1 mm, elliptic-lanceolate, obtuse, glabrous, thin, entire, white, edge thin, with 1-vein. Labellum 2.5–3 mm × 2 mm, when flattened 3.5–4 mm wide between tips of the lateral sides lobes, rhomboid, obtuse, thick at the tip, white with yellow at the tip, rarely purplish, relatively narrow at the base with 3-veins, margin wavy; terminal lobe 2.5–3 mm × 2 mm, thick, obtuse, triangular, short pointed, deflexed; lateral lobe 2.5–3 mm, obtuse, semicircular. Column ca. 1 × 0.75 mm, glabrous, reflexed, concave, dark brown doted; foot 1.6 mm long, short. Operculum ca. 1 × 0.05 mm white, bilobed; pollinia 8, waxy, pyriform. Clinandrium collar like; rostellum ligulate. Visidium simple, single, ellipsoid, bent toward the stigmatic cavity. Stigmatic cavity ca. 1 × 0.5 mm, cordate shaped with two appendages inside. Pedicel ca. 2.5 mm long including ovary, pubescent.


Distribution: Himalaya (Nepal to Assam), Thailand, Indo-China, Burma and Vietnam. Flowering: November to January.


Epiphytic, 20–22 cm high. Pseudobulbs fusiform, compressed, sympodial, 4–6.5 cm × 1.5–2 cm, 4 or 5 nodes in pseudobulbs covered by leaf sheath. Leaf sheaths 3 or 4 in number, deltoid, entire, acute, abscission layer present. Leaves rolled around pseudobulbs, 8–15 cm × 2.5–3 cm, 5 or 6 in number, cauline, lanceolate, acute, subcoriaceous, attenuate, glabrous, entire, 9-veins. Scape 1–5.2 cm long. Inflorescence 4–8 cm long, lateral, raceme, lax. Bracts 4–6 mm × 2.5 mm, lanceolate, glabrous, translucent, acute, indumentum scattered along edge, lower bracts longer than pedicel including ovary, with 3-veins. Flower 5 × 2.5 mm across, 6 mm when flattened, creamy white with yellow patch at the tip of the lip. Dorsal sepal ca. 5 × 2.5 mm, ovate, obtuse, glabrous, entire, thick. Lateral sepals ca. 6 × 5 mm ovate, slightly oblique, acute, thick, with 3–5-veins. Mentum 5 mm long from the foot of the column to the tip, round, incurved. Petals 2.5–3 × 2 mm, ovate, membranaceous, obtuse, thin, glabrous, entire, 3-veins, white, edge thin. Labellum 4.5–5 mm × 5 mm, thick, trilobed with broad claw; short; terminal lobe thick, 2.5 mm × 2.5 mm, 5 mm wide between tip of lateral lobe when flattened down, triangular, apex sinus with outgrowth, entire, convex, with 3-veins; lateral lobes round or triangular, base spreading, narrow. Column 2 × 1 mm, reflexed, light brown; foot 3 mm long. Operculum light purple, ca. 1.5 mm. Pollinia 8, pyriform caudicle gelatinous membranaceous. Clinandrium collar like; rostellum ligulate. Visidium simple, ellipsoid. Stigmatic cavity oval shaped outside, entire, ca. 1.5 × 1 mm. Pedicel ca. 4–5 mm × 0.5 mm including ovary, pubescent.

Specimens examined: Nepal; Kaski, C. Nepal, Ghodepani, 1600 m, D. M. Bajracharya CN0121, 18 August 1997 (TUCH, KATH); Bakhri Kharka, Modi Kholo 1700 m, Stainton, Sykes & Williams 6397, 17 July 1954 (BM); Puranchaur, Seti Khola 1100 m, Stainton, Sykes & Williams 6474, 24 July 1954 (BM). Assam: Khasia Gibson s. n. (K, type); Walter N. Koelis
Distribution: Himalaya (Nepal to Khasia), Thailand, Indo-China and Vietnam. Flowering: July to September.

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References

D. M. バジラチャリヤ：ネパール新産オサラン属の2種について
オサラン属は西太平洋、アジア、アフリカに約370種が知られている。ロンドン自然史博物館、キュー植物園、エディンバラ植物園及ぶネパール国内の標本室のオサラン属の標本と野外調査によっ

Enumeration of the Flowering Plants of Nepal, Vol. I: 42, Trustees of British Museum (Natural History), London.
Koba H., Akiyama S., Endo Y. and Ohba H. 1999. Name List of the Flowering Plants and Gymnosperms of Nepal. The University of Tokyo, Materials, No. 32, University of Tokyo, Tokyo.