TWO NEW TAXA OF ORCHIDACEAE FROM CENTRAL NEPAL

L. R. Shakya¹ & M. R. Shrestha²

Eria annapurnensis L.R.Shakya & M.R.Shrestha, a new species, and *Gastrochilus calceolaris* var. *biflora* L.R.Shakya & M.R.Shrestha, a new variety (both *Orchidaceae*), are described and illustrated from Annapurna Conservation Area, Central Nepal.

Keywords. Central Nepal, Eria, Gastrochilus, new taxa, Orchidaceae.

INTRODUCTION

In Nepal *Eria* is represented by 19 species (Hara *et al.*, 1978; Press *et al.*, 2000; Bajracharya, 2001; Bajracharya *et al.*, 2002, 2003; Bajracharya & Shrestha, 2003, 2004) and *Gastrochilus* by six species (Hara *et al.*, 1978; Press *et al.*, 2000). During an inventory of the orchids of Annapurna Conservation Area in Central Nepal we collected a new species of *Eria* closely related to *Eria alba* and a new variety of *Gastrochilus calceolaris*. Both these new taxa are described and illustrated below.

Eria annapurnensis L.R.Shakya & M.R.Shrestha, sp. nov. Fig. 1.

Eria alba Lindl. affinis, sed differt inflorescentia cum bi ad tres flore, praesentia serratus calli ad centrum labelli disco, praesentia column pedis, pollinia oblonga, claviforma. – Type: Nepal, Gandaki Zone, Kaski District, Chhomrong, 2000 m, 10 vi 2005, *L. Shakya, M. Shrestha & S. Shakya* 74 (holo KATH; iso TUCH).

Plant epiphytic, 13–16 cm tall. *Pseudobulbs* $3-4 \times 1-1.8$ cm, arranged in a row, crowded, ovoid to flask-shaped, with 2–3 nodes, marked with many distinct vertical lines, brown. *Leaves* 3, 8–11 × 1 cm, linear, acuminate, sheathed at the base, sessile. *Inflorescence* 4 cm long, shorter than leaves, terminal, erect, racemose, laxly 2–3-flowered. *Flowers* 1.5 cm across, sepals and petals white, lip mid-lobe yellow, lateral lobes purple; pedicel and ovary 5–6 mm long, slender. *Bracts* 4.5 × 1.5 mm, elliptic-ovate, shorter than the pedicel and ovary. *Sepals* subsimilar; dorsal sepal 7.4 × 1.5 mm, oblong, acute, 3-veined; lateral sepals 7.4×2.5 mm, lanceolate, 3-veined, weakly falcate. *Petals* 6 × 1 mm, linear-oblong, subacute, 3-veined. *Lip* 7 × 5 mm, 3-lobed, fleshy, clawed at base, oblong; lateral lobes triangular-oblong, obtuse, erect-incurved; mid-lobe orbicular, entire, apiculate; disc with 2 thick lamellae between the lateral lobes; with a distinctly serrated keel at the centre of the lip. *Column* 2 mm

¹ Botany Department, Amrit Campus, Thamel, Kathmandu, Nepal. E-mail: lokesh@ccsl.com.np

²Sustainable and Equitable Development Academy (SEDA), Kathmandu, Nepal. E-mail: sh.mani@ gmail.com



FIG. 1. *Eria annapurnensis* L.R.Shakya & M.R.Shrestha. A, habit; B, flower; C, bract; D, sepals, petal and lip spread out; E, column front view; F, column side view; G, pollinia.

long; column foot distinct, 1 mm long; stigma orbicular; pollinia 8, 0.75 mm long, oblong club-shaped.

Phenology. June (flowering and fruiting).

Distribution. Annapurna Conservation Area, Central Nepal.

Etymology. The specific epithet of the new taxon is based on its type locality, Annapurna mountain range.

Eria annapurnensis is allied to *Eria alba* Lindl. from which it can easily be distinguished by its 2–3-flowered inflorescence compared with a 4–8-flowered inflorescence; the presence of a serrate keel at the centre of the lip; the presence of a column foot, and the oblong club-shaped pollinia.

Gastrochilus calceolaris (Buch.-Ham. ex Sm.) D.Don var. biflora L.R.Shakya & M.R.Shrestha, var. nov. Fig. 2.

Gastrochilus calceolaris var. *calceolaris* affinis, sed differt inflorescentia cum biflore. – Type: Nepal, Gandaki Zone, Kaski District, Chhomrong, 2000 m, 10 vi 2005, *L. Shakya, M. Shrestha & S. Shakya* 75 (holo KATH).

Plant epiphytic, 23 cm tall. *Stem* short and pendulous. *Leaves* 13.5–20.5 \times 1.5 cm, distichous, strongly falcate, narrowly oblong, apex unequally emarginated. *Inflorescence* with two flowers, c.4 cm long, much shorter than leaves. *Flowers* c.1 cm across, sepals and petals yellow to greenish, speckled with brown, blotched with red-brown, lip yellowish, speckled with red; pedicel and ovary 8 mm long. *Bracts* c.3 mm long, ovate, acute. *Sepals* similar, spreading, 7.5 \times 2.7 mm, narrowly elliptic, apex obtuse, 3-veined. *Petals* 7.5 \times 2 mm, subspathulate, obtuse, 3-veined. *Lip* sessile, c.8.6 mm long, hypochile saccate-globose, c.2.5 mm deep; epichile reniform, margin dentate, disc heavily echinate. *Column* c.3 mm long, stigma orbicular; pollinia 2, waxy, nearly globose, grooved; connected to a long narrow stipe, with viscidium at base.

Phenology. May to June (flowering and fruiting).

Distribution. Known only from the type locality.

Etymology. The varietal epithet *biflora* was chosen because this variety has an inflorescence with two flowers.

Gastrochilus calceolaris var. *biflora* is closely allied to *G. calceolaris* var. *calceolaris* in gross morphology but differs from it in the inflorescence being two-flowered compared with the more than 12-flowered corymbose inflorescence of *G. calceolaris* var. *calceolaris*.

ACKNOWLEDGEMENTS

We are grateful to the Chicago Zoological Society, USA for funding the orchid conservation project in the Annapurna Conservation Area. The first author is indebted to Dr J. J. Wood of the Royal Botanic Gardens, Kew for confirming these new taxa. We are grateful to Mr Suresh Shakya for his valuable help in the field, and to Professor Ram P. Chaudhary for correcting the manuscript and providing valuable suggestions.

REFERENCES

BAJRACHARYA, D. M. (2001). *Eria apertiflora* Summerh. and *E. bipunctata* Lindl. (Orchidaceae), new records for the Nepal Himalaya. *J. Jap. Bot.* 76: 297–302.



FIG. 2. *Gastrochilus calceolaris* (Buch.-Ham. ex Sm.) D.Don var. *biflora* L.R.Shakya & M.R.Shrestha. A, habit; B, flower; C, sepals, petal and lip spread out; D, column; E, pollinia.

- BAJRACHARYA, D. M. & SHRESTHA, K. K. (2003). *Eria nepalensis* (Orchidaceae), a new species from Nepal. J. Jap. Bot. 78: 158–161.
- BAJRACHARYA, D. M. & SHRESTHA, K. K. (2004). Two new records of *Eria* Lindl. (Orchidaceae) for Nepal. *Himalayan J. Sci.* 2(3): 46–50.
- BAJRACHARYA, D. M., SHAKYA, L. R. & CHETTRI, M. K. (2002). *Eria baniaii* (Orchidaceae) a new species from Kathmandu Valley, Nepal. J. Orchid Soc. India 16(1–2): 91–93.

BAJRACHARYA, D. M., SUBEDI, A. & SHRESTHA, K. K. (2003). Eria pokharensis (Orchidaceae): a new species from Nepal Himalaya. J. Orchid Soc. India 17(1-2): 1-4.
HARA, H., STEARN, W. T. & WILLIAMS, L. H. J. (1978). An Enumeration of the Flowering Plants of Nepal 1: 30-58. London: British Museum (Natural History).

PRESS, J. R., SHRESTHA, K. K. & SUTTON, D. A. (2000). Annotated Checklist of the Flowering Plants of Nepal. London: The Natural History Museum.

Received 4 September 2006; accepted for publication 16 October 2006