A NEW DISTRIBUTION RECORD FOR *ERIA EXILIS* HOOK. F. (ORCHIDACEAE) IN SOUTHERN INDIA

Karuppusamy S and V Ravichandran

Department of Botany,
Centre for Botanical Research, The Madura College, Madurai – 625 011.
ksamytaxonomy@gmail.com

ABSTRACT

The present paper deals botanical description and new distributional record for an epiphytic Orchid species *Eria exilis* Hook.f. So far, this species has been recorded in Western Ghats of Kerala, Karnataka and Tamil Nadu. This is the first report to occur the *Eria exilis* in Eastern Ghats of Tamil Nadu. The paper is provided photographs, habitat ecology, phenology and distributional ranges to this tiny endemic Orchid species for facilitating the identification and conservation measures.

Key words: *Eria exilis*, Orchid species, Distribution, Eastern Ghats, Conservation.

INTRODUCTION

The Eastern Ghats are broken hillocks situated along the eastern Peninsular India extending oven 2,000 km between $11^0$03.00''-$22^0$03.04'N & $77^0$02.02' – $87^0$02.09'E. The hill ranges running along the Indian east coast and pass through the states of Orissa, Andhra Pradesh, Tamil Nadu and part of Karnataka. The number of flowering plant taxa represented approximately in the Eastern Ghats to be about 3500 (Pullaiah *et al.*, 2002). So far 195 species of Orchids under 55 genera were reported from the hills ranges (Reddy *et al.*, 2006).

The *Eria* Lindly is a Malaesian genus of about 500 species of epiphytic or lithophytic orchids, is represented in India by 55 species and 2 varieties. Eight species are found in Tamil Nadu (Henry *et al*., 1989). Hooker described *Eria exilis* based on a collection of specimen by Jhonson from Travancore of southern Western Ghats. It was also collected from Wyanaad and Silent valley of Kerala and Karnataka Gahts. *Eria exilis* Hook.f.has not been reported from Eastern Ghats of Tamil Nadu in any of the earlier publications. About 70 species of Orchids were enumerated from Kolli hills (Karuppusamy *et al*., 2009). During botanical exploration of Kolli hills recently some interesting orchid species were collected which were critically identified as *Eria exilis* Hook.f. Therefore, the species is enumerated herewith brief description, habitat, distribution and pehnological data.

MATERIALS AND METHODS

The intensive field study was conducted exclusively for collection of Orchids in Kolli hills of Eastern Ghats during 2009 – 2012. The Kolli hills is situated in Namakkal district of Tamil Nadu, well known for its tropical semi-evergreen and moist deciduous forests with diversity of medicinal flora and Orchids. The Study area includes all the forest areas, farm lands and thickets between 11^0 10'- 11^0 30' N and 75^0 15' – 75^0 30'E. While collecting the Orchids of Kolli hills, a small specimen of epiphytic Orchid species were collected from Kulivalavu shola of the study area. The collected specimens with flowers and fruits were dissected and examined under microscope in the laboratory. Herbarium specimens were prepared by standard methods (Jain and Rao, 1977). Voucher specimens were prepared, preserved and mounted on the herbarium sheets. The herbarium specimens were properly identified and authenticated with help of Botanical Survey of India, Southern Circle, Coimbatore and comparison of specimens with Orchids of Kerala (C.S. Kumar and K.S. Manilal, http://enchantingkerala.org/kerala-orchids.php).
The voucher specimens are deposited at Herbarium of department of Botany, The Madura College, Madurai.

Fig. 1 *Eria exilis*hook.f.on tree trunk

Fig. 2 *Eria exilis*Hook.f.with young sprouting discoid pseudobulbs.

Fig. 3 *Eria exilis*Hook.f.with mature capsules.

RESULTS AND DISCUSSION

Eria exilis Hook.f.Fl. Brit. Ind. 5:788. 1890: t. 2074; Fishcer in Gamble, Fl. Pres. Madras 3: 1425. 1928; Santapau&Kapadia, 150.1966; Saldanha in Saldanha& Nicolson, 827. 1976. *Eria chandrasekharanii* C.S. Kumar &Manilal, Taxon 35: 720. 1986.*Porpax chandrasekharanaii* Bhargavan&Mohanan, Curr. Sci. 31(20): 90. 1982.

Description: Epiphytic herb, pseudobulbs clustered, discoid, 5-10 mm across, dark greenish, fresh shoots lateral. Leaves 1 or 2, linear-oblong, narrowed into a short sheathing base, 2.0 – 3.5 x 0.5-1.0 mm, mucronate at the apex.Racemes 3-5 cm long, slightly bendulous, glabrous. Bracts lanceolate, 1-2 mm long, acuminate, glabrous, persistent. Flowers pale creamy yellow, minute. Sepals minute, 0.3-1.0 mm long, triangular-ovate to lanceolate, acute or sub-acuminate, 3-nerved, margin entire, glabrous. Lateral sepalsdecurved, bill-hook-shaped, obtuse, dorsal sepal slightly larger than the lateral. Petals linear-oblong, shorter than the lateral sepals.Lip minute, 0.1-0.3 mm long, straight upwards, edges entire. Ovary ca. 1 mm long, glabrous, slightly ribbed. Fruit ca. 2 mm long, ribbed with marcescentperianth (Fig. 1,2,3).

Voucher specimens: S. Karuppusamy 638 (23.10.2011); S. Karuppusamy& V. Ravichandran, 1426,Kulivalavu shola of Kolli hills, Namakkal district, Tamil Nadu on 1.9.2012 ($11^0$16.74'N - $78^0$19.88'E), ±1020 m altitude.

Distribution: Western Ghats of Maharashtra, Kerala, Goa, Western and Eastern Ghats of Tamil Nadu (Regional endemic). It also distributed in Sri Lanka and Thailand.

Phenology: Flowering and fruiting between October to December.

Habitat ecology: Mass laden tree trunks of *Memecylon umbellatum*, *Litsea oleoides*, *Myristica dactyloides* and *Neolitsea ceylanica*. Most of the period in the year around, the Orchid species appeared inconspicuous due to leafless discoid pseudobulbs intermingled with masses and other species of Orchids namely *Eria reticosa, Liparis elliptica, Porpax reticulata, Bulbophyllum fischeri* etc. *Eria exilis* blooms only when the monsoon showers started at the beginning of October. In the month of January, climate will become dried up, the mature capsules starts dehiscence and leaves disappear.

ACKNOWLEDGEMENT

Authors are thankful to the Director, Botanical Survey of India, Southern circle, Coimbatore for providing herbarium consultation and library facilities.

LITERATURE CITED

Jain SK and Rao RR, 1977. *Field and Herbarium Methods*. Today and Tomorrow´s Printers and Publishers. New Delhi, India.

Karuppusamy S, Muthuraja G and Rajasekaran KM, 2009. Status of Orchids on Kolli hills of Eastern Ghats, Tamil Nadu. *EPTRI – ENVIS News letter*, **15**(3): 3-5.

Henry AN, Chithra V and Balakrishnan NP, 1989. *Flora of Tamil Nadu, India. Series I. Analysis* Vol. 3.Botanical Survey of India, Coimbatore, India.

Matthew KM, 1984. *Flora of Tamil Nadu Carnatic*.Vol. 3.The Rabinet Herbarium, Thiruchirappalli, India.

Pullaiah T, MuralidharaRao, D and Sri Ramamurthy K, 2002. *Flora of Eastern Ghats: Hill ranges of south east India*. vol.1, Regency Publication, New Delhi.

Reddy CS, Pattanaik C, Murthy MSR and Reddy KN, 2006. Floristic census of Orchids of Eastern Ghats, India.*The Botanica* **56**: 79-96.

How to Cite this Article:

Karuppusamy S and V Ravichandran, 2013. A new distribution record for *Eria exilis* Hook.f. (Orchidaceae) in Southern India. *Biosci. Disc.,* **4**(1):12-14.