Indian Journal of Tropical Biodiversity

NEW RECORD OF *SPODOPTERA LITURA FABRICIUS* (LEPIDOPTERA: NOCTUIDAE) AS A FOLIAGE PEST OF ELAEOCARPUS ANGUSTIFOLIUS BL. THE RUDRAKSHA PLANT FROM INDIA

POOJA SINGH AND A.N. SINGH

1. Forest Entomology Division, Forest Research Institute, Dehradun

2. Environment Management Division, Indian Council of Forestry Research and Education, Dehradun

Corresponding authors email: dransamit@gmail.com

ABSTRACT: *Spodoptera litura* Fabricius is a serious polyphagous pest of economic significance in Asia, Oceania and the Indian subcontinent. Over 120 plant hosts belonging to agriculture, horticulture, avenue plantation and forestry have been reported to be affected by this pest. However, this has not been reported as a pest of *Elaeocarpus angustifolius*, the Rudraksha plant from India. Therefore, this is being reported for the first time as a new record. The characteristics of larvae, pupa and adult moth of *S. litura* along with photographs and its damage potential to the host have been discussed in the article. It is assumed that the infestation of this plant with this serious pest may further stress the population of *E. angustifolius*, which is already reported as threatened species in the NE region of India. Therefore, the need for evolving strategies for its management on this plant has been advocated.

Keywords: *Spodoera litura*, *Elaeocarpus angustifolius*, Indian Rudraksha plant, insect pest, moth, larvae.

Citation : Singh P. Singh AN (2019) New record of *Spodoptera Litura* Fabricius (Lepidoptera: Noctuidae) as a foliage pest of *Elaeocarpus Angustifolius* BL. The Rudraksha Plant from India. Indian J Trop Biodiv 27(2): 31-37

INTRODUCTION

Spodoptera litura Fabricius, commonly known as tobacco cutworm/ cotton leaf worm/ taro caterpillar is a nocturnal moth in the family Noctuidae. It is a serious polyphagous pest of economic significance in Asia, Oceania and the Indian subcontinent and over 120 plant hosts belonging to agriculture, horticulture and avenue plantation are reported to be affected by this pest (CABI, 2020). Based on damage potential, this pest has been treated as Quarantine Category A1 and A2 pest in various parts of the world (EPPO, 2015).

Among forestry and shrub species, it is reported to affect *Artocarpus integra*, *Cassia tora*, *Casuarina equisitifolia*, *Diospyros montana*, *Hevea brasiliensis*, *Lantana* sp., *Mangifera indica*, *Morus alba*, *Populus* sp., *Randia dumentorum*, *R. uliginosa*, *Terminalia tomentosa*, *Thuja orientalis* and *Tectona grandis* from India and its adjoining countries (Beeson, 1941; Browne, 1968). Later on, this pest has again been reported as major or minor pest of *Tectona grandis* (Roychaudhary *et al*., 1995), *Jatropha curcas* (Meshram and Joshi, 1994), *Butea monosperma* (Kulkarni and Joshi, 1995), *Acacia mangium* (Intachat and Kirton, 1997), *Paulownia fortune* (Kumar, 2004) and *Ginkgo biloba* (Khan *et al*., 2017). However, this has not been reported as a pest of *Elaeocarpus angustifolius*, the Rudraksha plant from India. Therefore, this is being reported for the first time as a new record.

Elaeocarpus angustifolius Bl., the Rudraksha plant from India

The *E. angustifolius* Bl. (Syn. *E. ganitrus* Roxb. ex G. Don, *E. sphaericus* Gaertn K. Schume) occur naturally in India in the moist evergreen forests between 1500 and 2000 m in the states of Bihar, West Bengal (Darjeeling), Sikkim, Arunachal Pradesh, Assam, Nagaland, Manipur and Maharashtra (Murti, 1993). This species has also been reported from other parts of the world like Temperate Asia, Tropical Asia including Australia and Pacific regions, Indian sub-continent (India, Bangladesh, Bhutan, Nepal, Srilanka), Indo-China (Cambodia, Myanmar, Thailand) and Malaya regions *i.e.* Malaysia, Indonesia, Philippines and Popua New Guinea (Murti, 1993; Coode, 1984, 2010).

In India, this plant has poor regeneration in the wild and is considered as a threatened species in the north-eastern region of India (Rao and Haridasan, 1983; Khan *et al*., 2003). This plant known as Rudraksha in India has been considered very sacred and pious for devotees in Hinduism (Seetha, 2005).