

Supplementary Material for **KUMAR, VINOD, P. VENKATA RAMI REDDY, AJIT KUMAR DUBEDIANAL AND VISHAL NATH**—**Outbreak of the Looper, *Perixera illepidaria* (Lepidoptera: Geometridae) on Litchi chinensis (Sapindales: Sapindaceae) - A New Pest Record from India.** Florida Entomologist 97(1) (March 2014) at <http://purl.fcla.edu/fcla/entomologist/browse>

Corresponding author: Dr. Vinod Kumar
National Research Centre for Litchi
Mushahari, Muzaffarpur, Bihar - 842002, India
vinod3kiari@yahoo.co.in

ABSTRACT

An outbreak of a looper, identified as *Perixera illepidaria* (Lepidoptera: Geometridae) was observed on litchi trees in Bihar state of India during Sep to Nov both in 2011 and 2012. Loopers fed voraciously on young leaves leaving behind only the midribs. During Oct 2011, trees having highly damaged canopies (> 50% top foliage damage) ranged between 0.7 to 29.4%, while partially damaged (< 50% foliage damage) tree were 1.4 to 20.8% at the Experimental Farm of National Research Centre for Litchi, Bihar, India. During Oct 2012, the incidence of looper infested trees in farmers' field varied from 34.1 to 84.5%, and up to 39.4% trees were in the 81-100% damaged foliage category. The mean number of larvae per 10 leaflets varied from 0.6 to 14.7. The developmental period from larvae to adult ranged from 15 to 19 days. The geographical range of this species had been N.E. Himalaya, Hong Kong, Sundaland, Philippines, Sulawesi and Guam. This is the first report on the occurrence of *P. illepidaria* on litchi in India.

Key Words: Bihar, canopy defoliation, development, litchi looper, pest outbreak

RESUMEN

Se observó un brote de la plaga medidor [*Perixera illepidaria* (Lepidoptera: Geometridae)] en árboles de litchi en el estado de Bihar de la India durante septiembre-noviembre, tanto en el 2011 y el 2012. Los medidores se alimentan vorazmente de las hojas jóvenes dejando sólo las nervaduras centrales. Durante el mes de octubre del 2011, las plantas con copas muy dañadas (> 50% de daño de follaje superior) variaron entre el 0.7 a 29.4%, mientras que los árboles que sufrieron daños parciales (10-30% de daño foliar) varían entre el 1.4 a 20.8% en la Granja Experimental del Centro de Investigación Nacional de Litchi, Bihar, India. Durante octubre del 2012, la incidencia de árboles infestados con medidores en el campo de los agricultores varió del 34.1 hasta 84.5%, y un máximo del 39.4% de plantas se encontraban en la categoría de follaje dañado del 81-100%. El promedio del número de medidores por 10 hojas varió de 0.6 a 14.7. Se completó el período de larva al adulto en 15-19 días. La plaga fue identificada como *Perixera illepidaria* Guenée (Geometridae). Se informa sobre la ocurrencia de *P. illepidaria* sobre litchi por primera vez en la India.

Palabras Clave: Bihar, defoliación de la copa, desarrollo, medidor de litchi, brote de plagas



Suppl. Fig. 1a. Symptoms of damage by a heavy infestation of *Perixera illepidaria* loopers on a litchi tree.



Suppl. Fig. 1b. Symptoms of damage by a heavy infestation of *Perixera illepidaria* loopers on a litchi tree.



Suppl. Fig. 1b1. Symptoms of damage by a heavy infestation of *Perixera illepidaria* loopers on a litchi tree.



Suppl. Fig. 2a. Characteristics of the *Perixera illepidaria* looper: Larva (close-up view, note the variation in color).



Suppl. Fig. 2a1. Characteristics of the *Perixera illepidaria* looper: Larva (close-up view, note the variation in color).



Suppl. Fig. 2b. Characteristics of the *Perixera illepidaria* looper: Larva (close-up view, note the variation in color).



Suppl. Fig. 2c. Characteristics of the *Perixera illepidaria* looper: Pupae just after pupation.



Suppl. Fig. 2c1. Characteristics of the *Perixera illepidaria* looper: Pupae just before adult emergence.



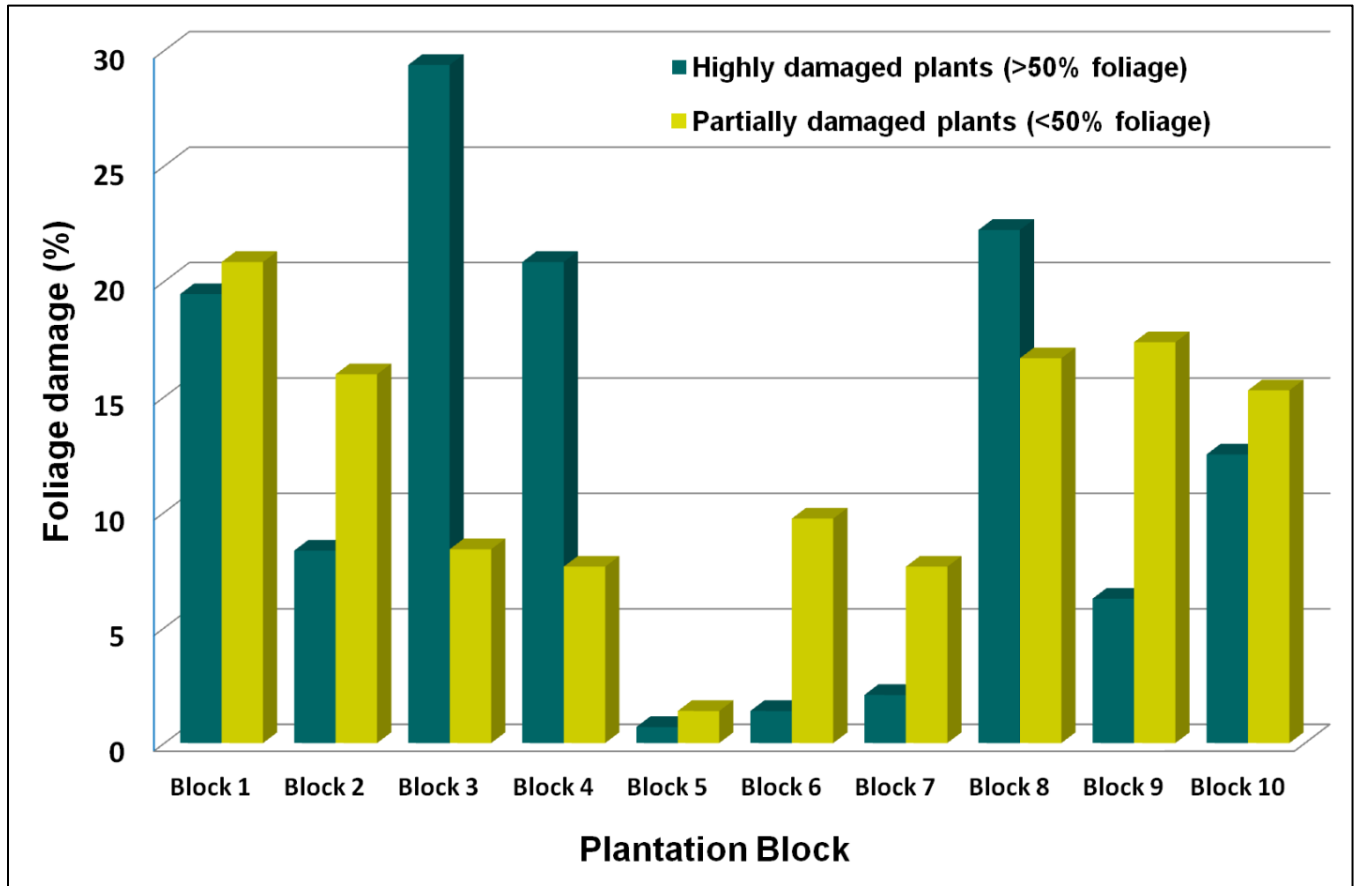
Suppl. Fig. 2c2. Characteristics of the *Perixera illepidaria* looper: Pupae on litchi leaves under field conditions.



Suppl. Fig. 2d. Characteristics of the *Perixera illepidaria* looper: Adult (dorsal view).



Suppl. Fig. 2d1. Characteristics of the *Perixera illepidaria* looper: Adult (ventral view).



Suppl. Fig. 3. Mean incidence and severity of damage to litchi trees by the *Perixera illepidaria* pest at the NRCL Experimental Farm during October 2011.