

**First Report of Leaf Spot Disease of *Philodendron hastatum*, an Ornamental Plant in Sri Lanka**

**Nawananda P.H.R.S.<sup>1</sup>, Mahendranathan C.<sup>1\*</sup>, Emmanuel C.J.<sup>2</sup>**

<sup>1</sup>*Eastern University, Chenkalady, Sri Lanka*

<sup>2</sup>*University of Jaffna, Jaffna, Sri Lanka*

\**chandrakantha@esn.ac.lk*

**Abstract**

Ornamental plants are an important component of the environment as it creates a living beauty of nature that enhances the quality of human life and represents an important economic group in the ornamental plant industry. The most common ornamental trees and shrubs are hosts to one or more pathogens that affect the leaves. In addition, leaf spots are considered as more aesthetic than life threatening problems, although they cause premature leaf drop. Hence, the main objective of this study was to investigate the newly emerging leaf sport diseases of the ornamental plants in Sri Lanka. Also, this study was aimed to isolate and identify the fungal pathogens from one of the locally available ornamental plants, *Philodendron hastatum*. According to the results, the spots on the leaves of *P. hastatum* were brownish, but tan or black and 3 to 5 mm diameter lesions were shown. The pathogen with tapered and curved (falcate) conidia, identified as *Fusarium* species. The results, obtained from morphological and molecular data, fungal isolate of this leaf spot was identified as *Fusarium oxysporum*. Similarity of sequences for fungus culture is 99% and the Accession Number is AB369259, based on the BLAST search results with authenticated sequences. The growth rate of the pathogen was gradually increased from the 1<sup>st</sup> day to 7<sup>th</sup> day of the incubation period and the maximum diameter was shown as 8.68±0.27 cm. Koch's postulates was performed in healthy *P. hastatum* leaves and resulted in the initiation of symptom which was 7 days after the inoculation, with brown color and circular shaped necrotic lesions typical to *Philodendron* leaf spot observed in originally used *P. hastatum* leaves, collected for isolation of pathogen. This is considered as the first report of *Philodendron* leaf spot, caused by *Fusarium oxysporum*, in Sri Lanka.

**Keywords:** *Philodendron hastatum*, Leaf spot, *Fusarium oxysporum*, Identification, Pathogenicity