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***Nyctanthes arbor-tristis* L.: A new host recoded for Mistletoe in Rajshahi,  
Bangladesh**

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**Abstract**

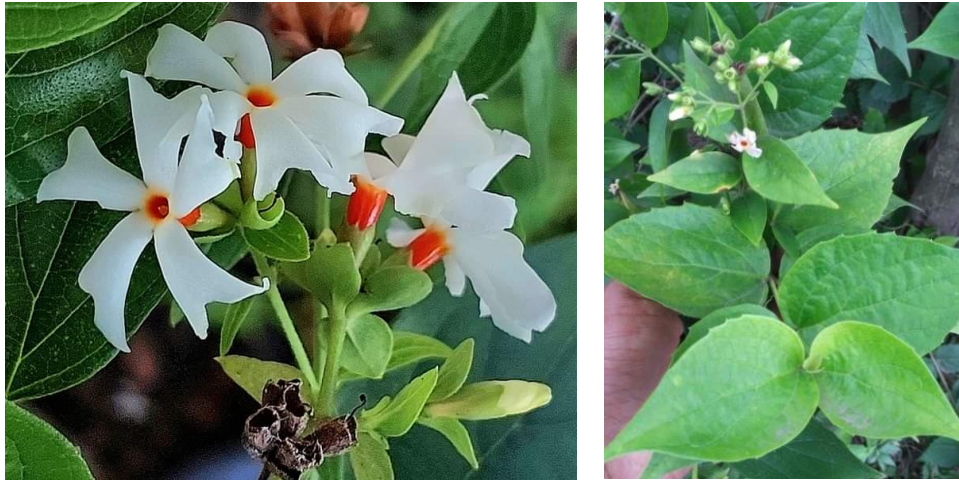
New host species for three mistletoes such as *Dendrophoe falcata* (L.f.) Ettingsh, *Macrosolene coccinensis* L. and *Sucurrula pulverulenta* (Wall.) G. Don belonging to *Loranthaceae* Juss. family was reported here for the first time from Rajshahi City. Six plants were infested by these three mistletoes and frequency of occurrence revealed that *Nyctanthes arbor-tristis* L. was a tertiary host.

**Keywords:** *Dendrophoe falcata* (L.f.) Ettingsh, *Macrosolene coccinensis* L., *Sucurrula pulverulenta* (Wall.) G. Don. New hosts.

**Introduction**

*Nyctanthes arbor-tristis* L. belonging to the family Oleaceae is commonly known as “Shiuli” in Rajshahi as well as Bangladesh (Fig 1). It is also known as Coral Jasmine, queen of the night and night flowering jasmine and native to southern Asia, extend across northern Pakistan and Nepal through Northern India to Southeast Thailand. *Nyctanthes*

*arbor-tristis* L. is typically a shrub having brilliant color and highly fragrant flowers, which bloom at night and fall off before sunrise so during the day the plant loses all its brightness and hence is called "Tree of sadness" (*arbor-tristis*). In Bangladesh it is very commonly planted in road side, in front of houses or premises of institution as an ornamental shrub for its flower.



**Fig. 1** *Nyctanthes arbor-tristis* L. flower and Branch

Besides that, each part of this plant has remarkable medicinal value (Rani *et al.*, 2012). *Nyctanthes arbor-tristis* is used in Ayurveda, Siddha-Ayurveda, and Yunani medicine as a laxative, diuretic, anti-venom, digestive, mild bitter tonic, and expectorant (Subhashini *et al.*, 2019). Thus, this shrub is valuable for us as a source of medicine. Unfortunately, the author noticed that some notorious Mistletoe (Dhyra in Bangla) grows on it which is capable to destroy this plant. Mistletoe is the common name for obligate hemiparasite perennial flowering plants of the order Santalales (Nickrent, 2011). In Rajshahi, four Mistletoe species belonging to *Loranthaceae* Juss. Family was found (Hasan, 2021; Hasan and Samad, 2023). During the study, A total 62 *N. arbor-tristis* L. plants were observed infested by mistletoes from the road side (Bheripara more to C&B More), Court bazar and Water development board office premises

of Rajshahi. Among the observed *N. arbor-tristis*, 3 plants were found infested by *Dendrophthoe falcata* (L.f.) Ettingsh. (Fig. 1) and developed their solitary unions (gall), 1 plant was observed infested by *Macrosolen cochinchinensis* (Lour.) Tiegh. and spreading their epicortical roots (Fig. 2) and 2 plants were found infested by *Scurrula pulverulenta* (Wall.) G. Don and develop epicortical roots also (Fig. 3). Hasan and Samad (2019) recorded 50 host species of *Dendrophthoe falcata* from Rajshahi. More six hosts for *D. falcata* was added by Hasan (2021). *Nyctanthes arbor-tristis* was reported as a host of *D. falcata* from Karnataka, India also (Thriveeni *et al.*, 2010). In Rajshahi, 13 hosts and 6 host was recorded for *Macrosolen cochinchinensis* and *Scurrula pulverulenta* respectively (Hasan, 2021). So far as I know, *N. arbor-tristis* was not reported yet as a host of *M.*

*cochinchinensis* and *S. pulverulenta*. This study revealed that *N. arbor-tristis* was susceptible for three different hemiparasite. Based on the rate of infestation (9.78%), *N. arbor-tristis* may

categorized as a tertiary host for these mistletoes (Sultan *et al.*, 2018). This is reported for the first time as a host of these three mistletoes in Rajshahi as well as Bangladesh.



**Fig. 2** *Dendrophthoe falcata* on *N.arbor-tristis*



**Fig. 3** *Macrosolen cochinchinensis* on *N.arbor-tristis*



**Fig. 4** *Scurrula pulverulenta* on *N.arbor-tristis*

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