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NOTE

Eight New Lepidopteran Folivores of *Chukrasia tabularis* Trees (Meliaceae) in Central Vietnam¹

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Chukrasia tabularis A. Juss (Meliaceae), a valuable timber species worths USD 700/m³, can reach a height of 35 m and diameter of 2 m (Pinyopusarerk & Kalinganire 2003, Kien & Harwood 2017). The species is native in southern China, and South and Southeast Asia (Kalinganire & Pinyopusarerk 2000, Pinyopusarerk & Kalinganire 2003). It is widely cultivated in China, Thailand and Vietnam (Ho & Noshiro 1995, Pinyopusarerk & Kalinganire 2003, Gunn et al. 2006). In Vietnam, *C. tabularis* has been used for reforestation after large areas of acacia and eucalyptus trees were severely damaged by pests and diseases (Thu et al. 2021, 2023, Chi et al. 2022). The area planted with this tree in Vietnam reached 35,000 ha in 2020 (Thu et al. 2021) and 40,000 hectares in 2022 (Phuong et al. 2025).

Similar to many species in Meliaceae, young stands of *C. tabularis* are highly susceptible to the shoot-tip borer *Hypsipyla robusta* Moore (Lepidoptera: Pyralidae) (Kalinganire & Pinyopusarerk 2000, Pinyopusarerk & Kalinganire 2003, Opuni-Frimpong et al. 2008, Darko et al. 2022). Other insects that can damage *C. tabularis* stands are *Episparis tortuosalis* Moore (Lepidoptera: Erebididae) (Browne 1968, Robinson et al. 2010, Quang et al. 2022), *Heterobostrychus* sp. (Coleoptera: Bostrichidae) (Kalinganire & Pinyopusarerk 2000), *Hypomeces squamosus* F. (Coleoptera: Curculionidae) (Kalinganire & Pinyopusarerk 2000), *Orthaga rhodoptila* Meyrick (Lepidoptera: Pyralidae) (Browne 1968), *Tapinolachnus lacordairei* Thomson (Coleoptera: Cerambycidae) (Chi et al. 2021b) and *Zeuzera coffeae* Nietner (Lepidoptera: Cossidae) (Browne 1968, Phuong et al. 2025). Our monitoring in *C. tabularis* plantations in central Vietnam over the past 2 yr revealed additional lepidopteran folivores. The purpose of this publication is to

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document these new records and updates the list of foliar pests attacking *C. tabularis* trees in Vietnam.

Between June 2024 and November 2025, caterpillars were collected from infested *C. tabularis* trees in forest plantations in Thanh Hoa (20.359240–20.480375 N, 104.600994–105.138898 E), Nghe An (19.344149–19.236598 N, 104.870991–105.185621 E), Quang Binh (17.468789–17.588998 N, 106.113222–106.284246 E), Hue (16.339361–16.504566 N, 107.338634–107.430607 E) and Da Nang Provinces (16.002387–16.114521 N, 108.025535–108.260766 E). Five plantations in each province were selected for monitoring and larval collection. Each plantation had approximately 4500–6800 trees, and all infested trees were sampled monthly. Larvae of nine folivore species were collected from damaged trees, placed with leaves in plastic boxes covered by meshes, and transported to a laboratory at the Vietnam Academy of Forest Sciences (VAFS), Hanoi, Vietnam, within 24 h. The larvae (50 of each species) were reared on *C. tabularis* in a laboratory at VAFS maintained at 26–28°C and 70–76% RH. A shoot with 3–5 compound leaves was collected from *C. tabularis* plantations in Thanh Hoa Province, placed in a jar of clean water, and then placed in a 60 × 60 × 60 cm mesh cage. The leaves were not treated with insecticides or other chemicals. The larvae were transferred onto the prepared shoots (25 larvae/cage, 2 cages for each folivore species). The shoots were replaced every 3 d until pupation. The pupae of each species were collected and placed in a different container until adult eclosion. Identification of emerged adults (15 adult specimens/species) was based on keys, descriptions and illustrations in Moore (1867), Hampson (1894), Joicey & Talbot (1916), Prout (1920), Holloway (1976, 1986, 1996, 1998, 2005), Han et al. (2009), Robinson & Kirke (1990), Yen (2004), Kononenko & Pinratana (2005), Pitkin et al. (2007), Schintlmeister (2008), Jiang et al. (2011) and Kishida et al. (2011). Voucher specimens were deposited in the insect collection at the Tay Nguyen University, Dak Lak, Vietnam.

Based on the external morphological characters of the adults (Fig. 1) from this study and compared with those previously given in the literature (cited above), eight lepidopteran folivore species were determined as follows: *Albara reversaria* Walker (Drepanidae), *Biston suppressaria* Guenée (Geometridae), *Episparis tortuosalis* Moore (Erebidae), *Ericeia sobria* Walker (Erebidae), *Eterusia aedea* L. (Zygaenidae), *Rusica fulvida* Guenée (Erebidae), *Stauropus alternus* Walker (Notodontidae) and *Termiopycha albifurcalis* Meyrick (Pyrilidae). One taxon, an *Epipristis* sp. (Geometridae), could not be identified to species but has these characteristics: antennae filiform, labial palpus greyish white, vertex greyish green, thorax with dorsal side greyish green, forewing length 13–16 mm, and wings greyish green with antemedial wavy brown line. The moths were associated with the genus *Epipristis* based on the features of habitus and wing pattern, but no described species within the genus possesses the same characteristics as have been observed in the specimens collected in this study. The specimens from this study are most similar to *Epipristis truncataria* (Walker) in having a brown spot bordered by the antemedial transverse line on the base of the hind wing but differ in some other features of the wing pattern.

In this study, four folivore species (*A. reversaria*, *E. sobria*, *R. fulvida* and *Epipristis* sp.) were recorded only in Thanh Hoa and Nghe An Provinces. The remaining five species were recorded in all study areas. This is the first report of

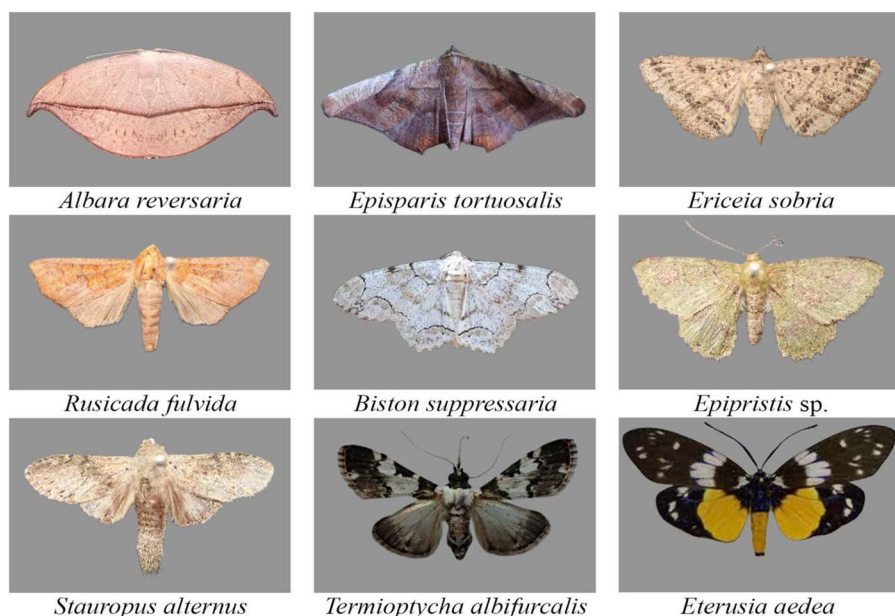


Fig. 1. Lepidopteran folivore species of *Chukrasia tabularis* identified in this study. Except for *Episparis tortuosalis*, all other species represent new herbivore records on *C. tabularis* in Vietnam.

T. albifurcalis in Vietnam. No *Epipristis* species has ever been recorded in Vietnam; therefore, further detailed description of this taxon is needed. *Episparis tortuosalis* was previously identified as a leaf-feeding caterpillar of *C. tabularis* in Vietnam (Quang et al. 2022). The other eight species were identified as previously undocumented pests of *C. tabularis* in Vietnam.

There is no published information on the hosts of *E. sobria*, *Epipristis* sp. and *T. albifurcalis*. However, the other four species are known to be polyphagous, with at least two recorded host plants (Table 1). Many taxa collected in this study are major pests in forestry and on other crops: *B. suppressaria*, *E. aedea* and *S. alternus* are common pests in tea plantations (Danthanarayana & Kathiravetpillai 1969, Roy et al. 2018); *E. tortuosalis* damages *C. tabularis* trees in Vietnam (Quang et al. 2022); and *B. suppressaria* is a problem in orchards (Gupta & Singh 1988) and damages *Acacia* and *Erythrophleum fordii* Oliv. (both Fabaceae) plantations in Vietnam (Thu et al. 2023, Truong et al. 2025).

The addition of eight species increased the list of lepidopteran pests of *C. tabularis* in Vietnam to 15 species. The worldwide diversity of lepidopteran species on *C. tabularis* may increase with additional surveys. Forest owners are concerned that any rapid increase in the population densities of these lepidopteran species could cause significant economic damage to their plantations. Therefore, further research on the life cycles of these new pests and impacts on tree growth and form need to be undertaken to support future pest management decisions in Vietnam and elsewhere.

Table 1. Distribution and other host trees of the nine lepidopteran folivores of *Chukrasia tabularis* recorded in this study.

Species	Distribution*	Host plant	Reference
<i>Albara reversaria</i>	China, Taiwan, India, Thailand, Vietnam, Cambodia, Malaysia, Indonesia	<i>Chukrasia tabularis</i> [†] , <i>Myrica</i> sp., <i>Quercus variabilis</i>	Sen & Lin (2002), Robinson <i>et al.</i> (2010)
<i>Biston suppressaria</i>	China, Pakistan, India, Nepal, Bhutan, Bangladesh, Myanmar, Sri Lanka, Thailand, Laos, Vietnam, Cambodia	<i>Acacia</i> spp., <i>Albizia</i> sp., <i>Bauhinia variegata</i> , <i>Bombax ceiba</i> , <i>Cassia auriculata</i> , <i>Cassia carandas</i> , <i>Camellia sinensis</i> , <i>Chukrasia tabularis</i> [†] , <i>Erythrophloeum fordii</i> , <i>Eucalyptus</i> spp., <i>Lagerstroemia indica</i> , <i>Litchi chinensis</i> , <i>Litsea monopetala</i> , <i>Mangifera indica</i> , <i>Paulownia tomentosa</i> , <i>Phyllanthus emblica</i> , <i>Phyllanthus salicina</i> , <i>Psidium guajava</i> , <i>Senna auriculata</i> , <i>Syzygium cumini</i> , <i>Toona ciliata</i> , <i>Vernicia fordii</i> , <i>Vernicia montana</i> <i>Chukrasia tabularis</i> [†]	Danthanarayana & Kathiravetpillai (1969), Gupta & Singh (1988), Robinson <i>et al.</i> (2010), Han <i>et al.</i> (2011), Thu <i>et al.</i> (2023), Truong <i>et al.</i> (2025)
<i>Epipristis</i> sp. cf. <i>Epipristis truncataria</i> <i>Episparis tortuosalis</i>	Vietnam [†]		NA
<i>Ericeia sobria</i>	China, India, Nepal, Sri Lanka, Thailand, Laos, Vietnam, Cambodia India, Thailand, Vietnam, Indonesia, Malaysia, Papua New Guinea, Gambia, Kenya, South Africa, Australia	<i>Azadirachta indica</i> , <i>Chukrasia tabularis</i> , <i>Mitchelia champaca</i> <i>Chukrasia tabularis</i> [†]	Sen <i>et al.</i> (1979), Kononenko & Pinratana (2005), Robinson <i>et al.</i> (2010), Quang <i>et al.</i> (2022) Holloway (2005), Coombs & Peter (2010), Singh <i>et al.</i> (2024)

Table 1. Continued.

Species	Distribution*	Host plant	Reference
<i>Eterusia aedea</i>	China, Taiwan, Japan, India, Nepal, Butan, Sri Lanka, Myanmar, Thailand, Laos, Vietnam, Cambodia	<i>Aporosa lindleyana</i> , <i>Aporosa villosa</i> , <i>Bischofia javanica</i> , <i>Buddleja</i> sp., <i>Camellia</i> spp., <i>Careya arborea</i> , <i>Cornus florida</i> , <i>Cleyera japonica</i> , <i>Chukrasia tabularis</i> [†] , <i>Eurya japonica</i> , <i>Eurya septata</i> , <i>Largerstroemia</i> sp., <i>Melastoma candidum</i> , <i>Myrica rubra</i> , <i>Rhododendron</i> spp., <i>Sapium insigne</i> , <i>Sloanea formosana</i> , <i>Symplocos glauca</i>	Hampson (1894), Yen (2004), Roy et al. (2018), Mamlayya et al. (2022), GBIF (2026)
<i>Ruscada fulvida</i>	China, Taiwan, Japan, India, Nepal, Sri Lanka, Myanmar, Thailand, Laos, Vietnam, Philippines, Malaysia, Indonesia, Micronesia, Samoa, Fiji, New Hebrides, Australia	<i>Calophyllum inophyllum</i> , <i>Chukrasia tabularis</i> [†] , <i>Hibiscus radiatus</i> , <i>Hibiscus mutabilis</i> , <i>Hibiscus glaber</i> , <i>Hibiscus rosa-sinensis</i> , <i>Urena lobata</i>	Kononenko & Pinratana (2005), Kishida et al. (2011), iNaturalist Community (2026)
<i>Stauropus alternus</i>	India, Nepal, Sri Lanka, Andaman Islands, Myanmar, China, Taiwan, Japan, Thailand, Laos, Vietnam, Cambodia, Philippines, Malaysia, Indonesia	<i>Acacia</i> spp., <i>Albizzia</i> spp., <i>Camellia sinensis</i> , <i>Cajanus cajan</i> , <i>Chukrasia tabularis</i> [†] , <i>Gossypium hirsutum</i> , <i>Grevillea robusta</i> , <i>Mangifera indica</i> , <i>Rosa</i> spp., <i>Theobroma cacao</i>	Hutson (1932), Satpathi & Ghosh (1993), Rahman & Dutta (1996), Reddy et al. (2001), Schintlmeister (2008)
<i>Termiopycha albifurcalis</i>	China, India, Sri Lanka, Thailand, Vietnam [†] , Malaysia	<i>Chukrasia tabularis</i> [†]	Rong et al. (2017), Rao & Sivaperuman (2025)

NA: None available.

*Distribution of the lepidopteran species is based on the cited literature sources and on critically analyzed data from the GBIF (2026) and iNaturalist Community (2026).

[†]Vietnam is a new county record or *C. tabularis* is a new host species for the lepidopteran species.

Significant economic damage to *C. tabularis* plantations has been recorded in Vietnam for a range of insect pests, such as *H. robusta* (Chi et al. 2022), *Z. coffeae* (Phuong et al. 2025), *T. lacordairei* (Chi et al. 2021b) and *E. tortuosalis* (Quang et al. 2022). In addition, serious damage from some polyphagous pests has also been reported on urban trees in Vietnam, such as *Copamyntis alectryonura* Meyrick (Lepidoptera: Pyralidae) and *Eurema hecabe* L. (Lepidoptera: Pieridae) on *Cassia fistula* L. (Fabaceae) (Tra et al. 2025), and *Aristobia approximinator* Thomson and *Aristobia horridula* Hope (Coleoptera: Cerambycidae) on seven urban tree species (Chi et al. 2025). These plants are often grown next to *C. tabularis* trees in Vietnam, and their pests can be potential threats to *C. tabularis* in plantations. Studies on the management of *H. robusta* on *C. tabularis* have reported that damage was reduced by about 75% at 30 d after application of carbaryl, carbosulfan, deltamethrin and fipronil (Chi et al. 2021a). The damage index of trees in plantations that had adopted an integrated pest management program was reduced by 82–83% compared to plantations that had not managed the pests (Chi et al. 2023). Biological control agents have been shown to be effective against *C. ombrodelta*, *H. robusta* and *Z. coffeae* (Chi et al. 2026, Phuong et al. 2026). Data from these studies will be illuminative for developing management practices against lepidopteran pests of *C. tabularis* identified in this and previous studies.

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