



## Unusual sex ratio of *Vitessa suradeva* Moore (Pyralinae: Pyralidae: Lepidoptera) attracted to light traps

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**ABSTRACT:** The present communication is about the unusual sex ratio of *Vitessa suradeva* Moore attracted to light traps. Females are reported to be more attractive to light traps than their male counterpart. Only one male could be collected out of 25 samples over two years of collections in North East India. © 2016 Association for Advancement of Entomology

**KEYWORDS:** Lepidoptera, Pyralidae, Pyralinae, *Vitessa suradeva* Moore.

Genus *Vitessa* was established by Moore in 1860 for its type species *Vitessa suradeva* Moore and presently is known by 28 species and 16 subspecies from the Globe with two species, *Vitessa suradeva* Moore and *Vitessa nicobarica* Hampson from India (Munroe and Shaffer, 1980). *Vitessa suradeva* Moore is further known by two subspecies, *Vitessa suradeva suradeva* Moore distributed from North and North East India to Myanmar, Thailand and Vietnam and *Vitessa suradeva rama* Moore distributed from South India, Nicobar to Sri Lanka. The former subspecies is larger than the latter one. Furthermore, both the subspecies can be separated on the basis of their slightly distinct male genitalia. The members of *Vitessa suradeva* Moore, 1860 have the wing markings atypical of Pyralinae but on the basis of external male and female genitalia the group conform to the characterization of subfamily Pyralinae.

The present communication is about the unusual sex ratio of *Vitessa suradeva* Moore attracted to light traps. Females are reported to be more attractive to light traps than their male counterpart. Only one male could be collected out of 25 samples over two years of collections in North East India. In addition to, the photograph of adult, external male

and female genitalia of the species under reference is also given. Examples of the studied species were collected with the help of vertical sheet light traps fitted with mercury vapour lamp (160 W) during night time. The collection-cum-survey tours led to the collection of 25 examples of *Vitessa suradeva* Moore from different localities of North East India.

### *Vitessa suradeva* Moore, 1860

*Vitessa suradeva* Moore, [1860] in Horsfield & Moore, Cat. Lep. Ins. Mus. Nat. East India House 2 : 299

*Vitessa formosa* Felder & Rogenhofer, 1875 Reise Fregatte Novara, Bd 2 (Abth. 2) (5): pl. 137

**Description:** Head and thorax golden yellow; 3rd joint of palpi and antennae black; abdomen banded with black and white. Forewings with the base golden yellow; two subbasal metallic black spots; two quadrate black antemedial patches; the medial area greyish white with an irregular medial band of dentate marks enclosing an oval white spot below the costa; outer area black, veins streaked with white. Hindwings white, the outer half bluish black. Male genitalia with uncus curved, base wide flattened, and laterally constricted; valvae with costa incurved for most of the length, apex truncate,

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harpae present, saccus broad and notched. Aedeagus broadening towards tip, catena present; vesica with bunches of spines. Female genitalia with corpus bursae pear shaped, membranous; ductus bursae narrow and long; antrum sclerotized, pouch like.

**Material examined:** **Mizoram:** Mamit, 27. ix. 2013 -6♀; **Sikkim:** Dodak, 05. v. 2014 -1♀; **Meghalaya:** Shilong, 26. viii. 2014 -2♀; Mawsynram, 27. viii. 2014 -3♀, 28. viii. 2014 -4♀, Riat Khwan, 03.ix.2014 -3♀, Cherrapunjee, 04. ix. 2014 -2♀, 1♂, 05. ix.2014 -2♀; Umtasor, 15. ix. 2014 -1♀

**Distribution:** India: Sikkim, Assam, Hills of South India, Andamans (Hampson, 1896), Peechi (Mathew and Menon, 1984), Sylhet, Travancore, Anamalai hills (Cotes and Swinhoe, 1889); Sri Lanka; Bangladesh; Myanmar; Thailand; Vietnam (Munroe and Shaffer, 1980).

**Host plant:** *Dichapetalum gelonioides* (Dichapetalaceae) (Robinson *et al.*, 2001)

**Discussion:** The present inferences are based on a sample of 25 specimens collected through different collection-cum-survey tours in the far flung localities of North East India. The collection-cum-survey tours were conducted in the pre monsoon and post monsoon seasons of year 2013 and 2014. During the collection surveys, *Vitessa suradeva* Moore was collected from the localities like Mamit (Mizoram); Dodak (Sikkim); Shilong, Mawsynram, Riat Khwan, Cherrapunjee, Umtasor (Meghalaya). The study revealed that out of the collected 25 specimens 24, are females and single specimen is of male. The present observation is in contrast to some earlier studies where the authors reported that males of some species are significantly more likely to be recorded at light traps than females (Garris and Synder 2010). But the case of *Vitessa suradeva* Moore is completely different where females outnumbered the males.

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