

New Record of two egg parasitoids of rice gundhi bug, *Leptocorisa* sp. (Hemiptera: Alydidae) in Gujarat

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ABSTRACT

The incidence of rice gundhi bug, *Leptocorisa* sp. generally occurs in 37th standard week and it continues to attack till 42nd standard week in rice fields during wet season. Multiple parasitism of two egg parasitoids viz. *Trissolcus* sp. (Hymenoptera: Scelinoidae) and *Oenocyrtus utetheisae* (Hymenoptera: Encyrtidae) occurred from last week of September and it remained active till third week of October with a peak in the second week of October.

Key words: *Leptocorisa*, egg parasitoid

The rice gundhi bug, *Leptocorisa* sp. (Hemiptera: Alydidae) is recorded in all rice growing area. In South Gujarat, it was reported as a sporadic and minor pest of rice (Korat and Mehta, 1995). But after 1995 the attack of this pest was found to be severe in rice fields of South Gujarat. Both the nymphs and adults suck the sap from developing grains during milking stage and thus make them partially or completely chaffy. Growing panicle is completely shattered and becomes white colored under severe infestation.

Survey of eggs of *Leptocorisa* sp. conducted at NARP farm, NAU, Navsari of Gujarat during wet season 2009, 2010 and 2011. We collected 101, 121 and 118 egg masses from the rice fields during wet season 2009, 2010 and 2011, respectively. The eggs were reared in the laboratory and observed for emergence of parasitoids. On emergence, the parasitoids were separated based on visual characters. Subsequently, the parasitoids were identified at Indian Agricultural Research Institute, New Delhi as *Trissolcus* sp. (Hymenoptera: Scelinoidae) and *Oenocyrtus utetheisae* (Risbec) (Hymenoptera: Encyrtidae). Thus, it seems that the both species have been recorded for the first time in Gujarat as a egg parasitoids of *Leptocorisa* sp.

The eggs were found to be parasitized from 39th to 41st standard week (last week of September to second week of October) with a highest 20.83 per cent parasitism in 40th standard week in wet season 2009. The eggs were found to be parasitized from 40th to 42nd standard week (first week of October to third week of October) with a peak of 16.00 per cent parasitism in 41st standard week in wet season 2010. In case of wet season 2011, the eggs masses were found to be attacked by parasitoids 39th to 42nd standard week (last week of September to third week of October) with a peak of 17.02 per cent parasitism in 41st standard week (Table 1).

Trissolcus sp. had been recorded from the eggs of *Eurydema ornatum* L., *E. maura* L., *Carpocoris pudicus* Podia, *Aelia acuminata* L., *Dolycoris baccurum* L. (Johnson, 1987) while *O. utetheisae* had been reported from the eggs of *Piezodorus hybneri*, *Leptocorisa* sp., *Leptocorisa acuta*, *Riptortus* sp. (Hemiptera: Alydidae), *Amblypelta lutescenspapuensis* Brown, *Dasynus pipris* China, *Mictis profana* F. (Hemiptera: Coreidae), *Nezara viridula* L. (Hemiptera: Pentatomidae), an unidentified coreid bug and an unidentified moth (Huang and Noyes (1994) and Yan-Zhou Zhang *et al.* (2005)). Randhawa

Table 1. Gundhi bug egg parasitism occurred during wet season 2009, 2010 and 2011

Standard Week	No. of egg mass			Mean	% egg mass Parasitized			Mean
	2009	2010	2011		2009	2010	2011	
36 (5 Sept-11 Sept.)	0.00	1.00	0.00	0.33	0.00	0.00	0.00	0.00
37 (12 Sept.-18 Sept)	0.00	9.00	0.00	3.00	0.00	0.00	0.00	0.00
38 (19 Sept.-25 Sept)	4.00	3.00	9.00	5.33	00.00	0.00	0.00	00.00
39 (26 Sept.-2 Oct.)	15.00	0.00	16.00	10.33	13.33	0.00	12.50	12.15
40 (3 Oct. - 9 Oct.)	24.00	32.00	25.00	27.00	20.83	6.25	16.00	14.36
41 (10 Oct. - 16 Oct.)	49.00	50.00	47.00	48.67	12.24	16.00	17.02	15.09
42 (17 Oct. - 23 Oct.)	9.00	26.00	15.00	16.67	00.00	3.85	6.67	3.50
43 (24 Oct. - 30 Oct.)	0.00	0.00	6.00	2.00	00.00	0.00	0.00	0.00

et al. (2006) recorded that the eggs of *Leptocorisa acuta* was parasitized by *Ooencyrtus papilionis*.

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