

BIODIVERSITY OF PENTATOMOIDEA BUGS (HEMIPTERA –HETEROPTERA) OF SURGANATEHSIL, NASHIK DISTRICT, MAHARASHTRA INDIA.

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ABSTRACT:

Present investigation deals with diversity of pentatomoidea bugs (Hemiptera- Heteroptera) from Surgana tehsil, Nashik District of Maharashtra, India during the year 2018-2019. Research study revealed a total of 10 species belonging to 9 genera representing 3 families.

KEYWORDS:

Pentatomoidea, Pentatomidae, Dinidoridae, Diversity, bugs, Nashik.

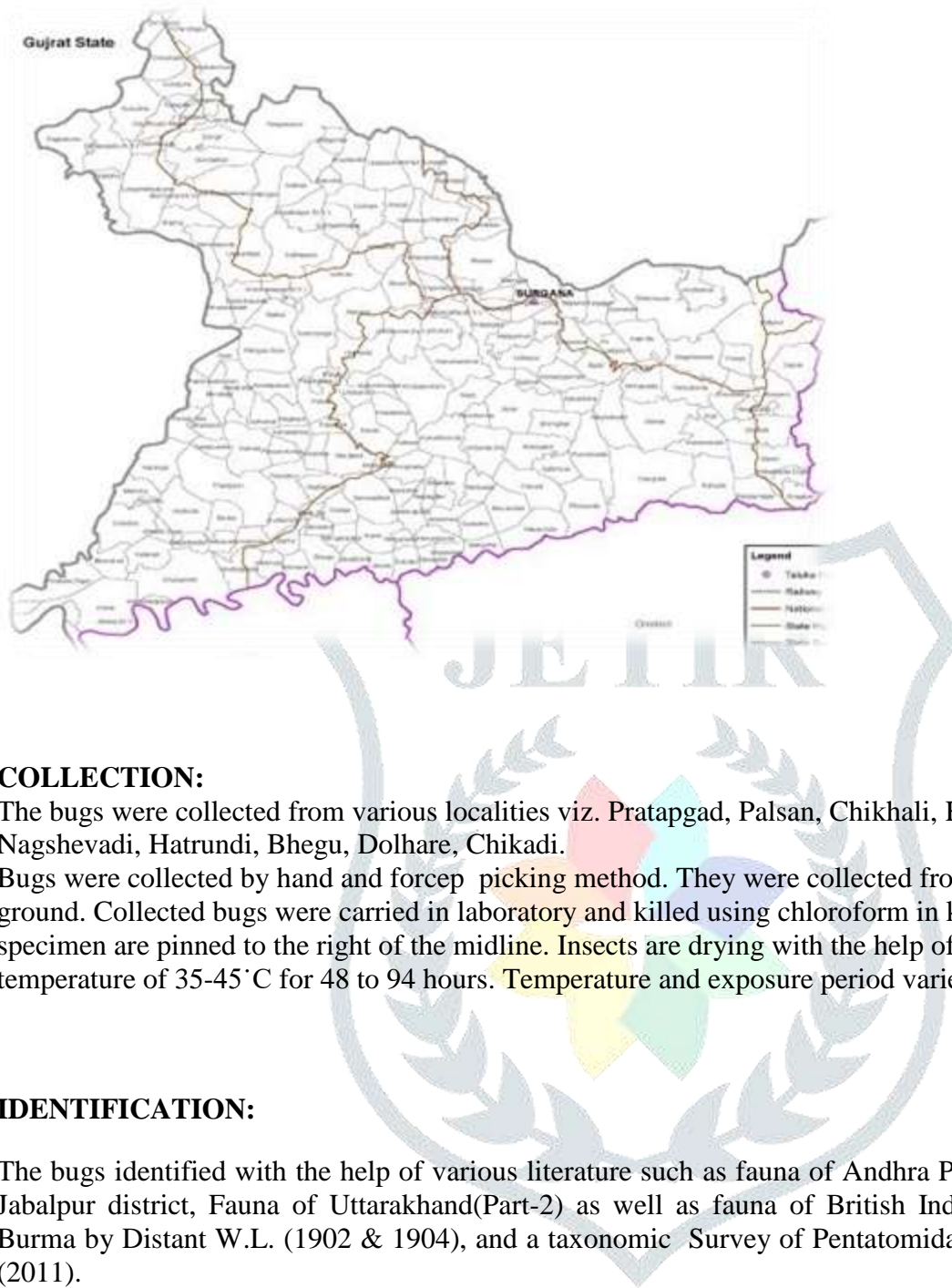
INTRODUCTION:

Hemiptera is one of the diverse order among the class insecta. About 19300 species belonging to 133 families reported throughout the world (Hodkinson ID 1991). Hemiptera order of India has been studied by many workers but the important contribution given by Distant. Presently around 7000 species under 1300 genera of pentatomoidea are reported all over the world (Henry 2009). About 590 species are known and occur in India (Distant 1902,1907,1918; Ahmad &Afzal, 1989). Information of Pentatomoidea of central India was included in 'Fauna of British India' by Distant (1902,1907,1918).The superfamily Pentatomoidea are commonly known as a stink bugs or shield bugs, they are mostly phytophagous but some members are predaceous. Large scutellum is a typical character of these bugs.

MATERIALS AND METHODS

STUDY AREA:

Surgana belongs to Khandesh and Northern Maharashtra region. It belongs to Nashik division. It is located 77 km. towards north from Nashik district. This area is having good rainfall and therefore sufficient vegetation is present, which is an indicator of biodiversity.



COLLECTION:

The bugs were collected from various localities viz. Pratapgad, Palsan, Chikhali, Khokadvahir, Ambode, Nagshvadi, Hatrundi, Bhegu, Dolhare, Chikadi.

Bugs were collected by hand and forcep picking method. They were collected from grass, bushes and ground. Collected bugs were carried in laboratory and killed using chloroform in killing jar. Killed insect specimen are pinned to the right of the midline. Insects are drying with the help of electric oven at the temperature of 35-45°C for 48 to 94 hours. Temperature and exposure period varies with size of specimen.

IDENTIFICATION:

The bugs identified with the help of various literature such as fauna of Andhra Pradesh, Faunal diversity of Jabalpur district, Fauna of Uttarakhand(Part-2) as well as fauna of British India, including Ceylon and Burma by Distant W.L. (1902 & 1904), and a taxonomic Survey of Pentatomidae of India by NayyarAzim (2011).

RESULT AND DISCUSSION:

In the present study total 10 species belong to the 9 genera representing 3 families were recorded.

R.C. Bhagat (2015) recorded *Halyomorpha*, *Nezaraviridula* and *Halysdentatus* from Jammu, Kashmir and Ladakh.

Kailash Chandra et al. (2015) recorded *Nezaraviridula*, *coridiusjanus* and *Halysdentatus* from Ratapani wildlife sanctuary Madhya Pradesh.

B.Biswas et al. (2014) recorded *Nezaraviridula*, *Tesseratomasp.* from Chhattisgarh.

Kailash Chandra et al.(2014) recorded *Aspongopusbrunneus*, *Halyomorpha*, *Nezaraviridula*, *Halysdentatus* and *coridiusjanus* from Madhya Pradesh.

M.NayyarAzim(2011) recorded *Halyomorpha*, *Halysdentatus* and *Dalpadaoculata* from India.

Dolly Kumar et al. (2010) reported *Halyomorpha* from Vadodara, Gujarat.

Debdas et al. (2014) reported *Nezaraviridula* from West Bengal.

Aland et al.(2010) recorded *Tessaratomia sp.*, *Halyomorpha sp.*, and *Halysdentatus* from Amba reserved forest, Western ghat, Maharashtra.

Table No.1. List of Plant bugs observed during present study

SR.NO	FAMILY	SPECIES	DATE AND PLACE
1.	Pentatomidae	1. <i>Halysdentatus</i>	02/07/2018-Khokadviher 23/07/2018-Ambode 01/08/2018- Dolhare
		2. <i>Nezaraviridula</i>	11/07/2018- Hatrundi 22/07/2018- Chikadi 01/08/2018- Dolhare 06/08/2018- Bhegu
		3. <i>Degonatus serratus</i>	20/06/2018- Palsan 21/06/2018- Pratapgad 21/08/2018- Pratapgad
		4. <i>Halyomorpha picus</i>	27/06/2018- Chikhali 21/08/2018- Pratapgad
		5. <i>Halyomorpha halys</i>	23/07/2018- Ambode 01/07/2018- Palsan
		6. <i>Dalpada oculata</i>	22/06/2018- Dolhare
		7. <i>Megyamenum parallelum</i>	01/08/2018- Dolhare
2.	Dinidoridae	1. <i>Coridius janus</i>	21/06/2018-Pratapgad 01/08/2018- Dolhare 21/08/2018- Pratapgad
		2. <i>Aspongopus brunneus</i>	01/07/2018- Palsan 15/07/2018- Dolhare
3.	Tessaratomidae	1. <i>Tessaratomia javanica</i>	25/08/2018- Bhegu 21/08/2018- Pratapgad

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Haly sdentatus



Nezara viridula



Degonatus serratus



Halyomorpha picus



Dalpada oculata



Megyamenum parallelum



Coridius janus



Aspongopus brunneus



Tessaratoma javanica

