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CHROMOSOME NUMBER AND SEX DETERMINING MECHANISM IN THIRTY SPECIES OF CHRYSOMELIDAE (COLEOPTERA)

G. P. SHARMA AND V. B. SOOD  
 Department of Zoology, Panjab University, Chandigarh

Cytogenetical studies on 30 species of Chrysomelids have been recorded.

Cytogenetical studies including sex chromosome mechanism in thirty species of Chrysomelidae, belonging to nine different sub-families, have been made (Table 1). The sex chromosomes are generally associated to form the primitive Xyp configuration though they show the other types of associations also viz., Xy, XY and XO. The chromosomal dimorphism with regard to the sex chromosomes has

been brought to light in *Lacoptera quadrimaculata* and *Cassida enervis*. Intraspecific polymorphism with regard to the autosomes has been observed in *Cassida syratica*, where an additional large autosome (marker chromosome) has been encountered in the diploid as well as the haploid set of the chromosomes. The detailed results of the study will be presented elsewhere.

TABLE I  
 Chromosome number and sex mechanism in the chrysomelids studied

	Species	Chromosome number		Male sex mechanism
		2n	n	
Subfamily Criocerinae				
1.	<i>Lema terminata</i> Lacord	16	8	Xyp
2.	<i>Lema semifulva</i> Jac.	16	8	Xyp
3.	<i>Lema downesi</i> Baly	22	11	Xyp
4.	<i>Lema cerea</i> Jac.	14	7	Xyp
Subfamily Cryptocephalinae				
5.	<i>Cryptocephalus oppositus</i> Jac.	30	15	Xyp
6.	<i>Cryptocephalus triangularis</i> Hope	32	16	Xyp
7.	<i>Cryptocephalus octospilosus</i> Baly	32	16	XY
Subfamily Clitrinae				
8.	<i>Gynandrophthalma mungphuensis</i>	-	12	Xy
Subfamily Eumolpinae				
9.	<i>Colasposoma metallicum</i> Clark	16	8	Xyp
10.	<i>Eubranthis rufotibialis</i> Jac.	16	8	Xyp
11.	<i>Corynodes peregrinus</i> Fuessly	28	14	Xyp
12.	<i>Nodostoma obliteratum</i> Jac.	24	12	Xyp
Subfamily Chrysomelinae				
13.	<i>Plagioderia rufescens</i> Gyll.	30	15	Xyp

	Species	Chromosome number		Male sex mechanism
		2n	n	
Subfamily Galerucinae				
14.	<i>Galerucella placida</i>	-	19	Xyp
15.	<i>Apophylla sericea</i> (Fabr.)	-	15	Xyp
16.	<i>Galeruca indica</i> Baly	46	23	Xyp
17.	<i>Monolepta signata</i> (Oliv.)	18	9	Xyp
18.	<i>Oides bipunctata</i> Fabr.	17	9	XO
19.	<i>Oides</i> sp.	49	25	XO
20.	<i>Erganoides</i> sp.	26	13	Xyp
21.	<i>Kanarella</i> sp.	-	13	Xyp
Subfamily Halticinae				
22.	<i>Sebathae</i> sp.	24	12	Xy
Subfamily Hispinae				
23.	<i>Dactylispa humeralis</i> Ws.	16	8	Xyp
24.	<i>Dactylispa brevispinosa</i> Chap.	16	8	Xyp
Subfamily Cassidinae				
25.	<i>Laccoptera quadrimaculata</i> Thunb.	18	9	Xyp/Xyyp
26.	<i>Prioptera decemmaculata</i> Boh.	18	9	Xyp
27.	<i>Cassida syratica</i> Boh.	18/18+1*	9/9+1*	Xyp
28.	<i>Cassida enervis</i> Boh.	18	9	Xyp/Xyyp
29.	<i>Cassida</i> sp.	-	10	Xyp
30.	<i>Oocassida pudibunda</i> Boh.	38	19	Xyp

\*Marker chromosome