

Karyotypes of Pentatomoidea additional to those published by Ueshima, 1979 (Heteroptera)

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A list of pentatomoid karyotypes published after the monograph by Ueshima (1979) or overlooked by him is given. It includes 131 species.

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Karyotypes are used in the systematics of Pentatomoidea mainly at suprageneric level. Ueshima (1979) published a monograph on the heteropteran karyotypes based on examination of an extensive literature. Independently, such a list for Pentatomoidea was compiled by Nuamah (1982); it included also some species overlooked by Ueshima and numerous original data. In the 25 years, which lapsed since publication of Ueshima's work, some other papers on the pentatomoid karyotypes were published as well. The number of examined species increased about 1.5 times, and it seems

expedient to publish a list of additions (see the Table). For better comparability, we accepted the suprageneric taxa of Pentatomidae as in Ueshima, though the tribal classification used by him is partly outdated. In contrast to Ueshima, we did not subdivide the not numerous Cydnidae and Scutelleridae into subfamilies.

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Table. Karyotypes of Pentatomoidea additional to those published by Ueshima (1979)

Taxon	Karyotype	Reference
Family Urostylididae		
<i>Urochela quadrinata</i> Reut.	12 + XY	Muramoto, 1978
<i>Urochela</i> sp.	14 + XY	Manna & Deb-Mallick, 1981
<i>Urolabida histrionica</i> Westw.	12 + XY	Manna & Deb-Mallick, 1981
<i>Urolabida variegata</i> Dist.	14 + XY	Muramoto, 1978
<i>Urostylis annulicornis</i> Scott	14 + XY	Muramoto, 1978
Family Thaumastellidae		
<i>Thaumastella elizabethae</i> Jacobs	16 + 2m + XY	Jacobs, 1989
<i>Thaumastella managuensis</i> Schaef. & Wilcox	14 + 2m + XY, 12 + 2m + X ₁ X ₂ Y	Jacobs, 1989
Family Cydnidae		
<i>Aethus indicus</i> Westw.	10 + XY	Satapathy & Patnaik, 1989
<i>Lactistes truncateserratus</i> Sign.	10 + XY	Mittal & Leelamma, 1981
<i>Macroscythus brunneus</i> F.	10 + XY	Nuamah, 1982

Family **Plataspidae**

<i>Brachyplatys incertus</i> Walk.	10 + XY	Nuamah, 1982
<i>Brachyplatys testudonigra</i> Stål	10 + XY	Nuamah, 1982
<i>Coptosoma nepalense</i> Westw.	8 + XY	Mittal & Leelamma, 1981
<i>Coptosoma nubile</i> Germ.	10 + XY	Nuamah, 1982
<i>Coptosoma stali</i> Mont.	10 + XY	Nuamah, 1982
<i>Paracopta</i> (as <i>Coptosoma</i>) <i>duodecimpunctata</i> Germ.	10 + XY	Mittal & Leelamma, 1981

Family **Acanthosomatidae**

<i>Acanthosoma expansum</i> Horv.	12 + X0	Muramoto, 1973
<i>Acanthosoma spinicolle</i> Jak. (= <i>frater</i> Reut.)	12 + XY	Muramoto, 1978
<i>Anaxandra</i> sp.	10 + XY	Dey & Wangdi, 1988

Family **Scutelleridae**

<i>Calidea duodecimpunctata</i> F.	10 + XY	Nuamah, 1982
<i>Chrysocoris</i> (as <i>Fitha</i>) <i>ardens</i> Walk.	10 + XY	Mittal & Leelamma, 1981
<i>Chrysocoris eques</i> F.	10 + XY	Jande, 1959b
<i>Eucorysses</i> (as <i>Chrysocoris</i>) <i>grandis</i> Thunb.	10 + XY	Manna & Deb-Mallick, 1981
<i>Hotea subfasciata</i> Westw.	10 + XY	Nuamah, 1982
<i>Poecilocoris nepalensis</i> H.-S. (as <i>hardwickii</i> Westw.)	10 + XY	Mittal & Leelamma, 1981
<i>Sphaerocoris testudogrisea</i> De G.	10 + XY	Nuamah, 1982
<i>Steganocerus multipunctatus</i> Thunb.	10 + XY	Nuamah, 1982

Family **Dinidoridae**

<i>Coridius brunneus</i> Thunb. (as <i>obscurus</i> F.)	12 + XY	Satapathy & Patnaik, 1988
<i>Coridius chinensis</i> Dall.	12 + XY	Dey & Wangdi, 1988
<i>Coridius cuprifer</i> Westw.	12 + XY	Nuamah, 1982
<i>Coridius nepalensis</i> Westw.	2n = 14	Dey & Wangdi, 1988
<i>Megymenum brevicorne</i> F. (as <i>inerme</i> H.-S.)	16 + XY	Satapathy & Patnaik, 1988

Family **Tessaratomidae**

<i>Eurostus grossipes</i> Dall.	10 + XY	Dey & Wangdi, 1988
<i>Eusthenes cupreus</i> Westw. (as <i>eurytus</i> Dist.)	10 + XY	Dey & Wangdi, 1985
<i>Eusthenes robustus</i> Lep. & Serv.	10 + XY	Dey & Wangdi, 1985
<i>Piezosternum calidum</i> F.	12 + XY	Nuamah, 1982
<i>Piezosternum subulatum</i> Stål	10 + XY	Schrader, 1947
<i>Tessaratoma javanica</i> Thunb.	10 + XY	Parshad, 1957
<i>Tessaratoma papillosa</i> Drury	10 + XY	Satapathy et al., 1990

Family **Pentatomidae**Subfamily **Asopinae**

<i>Afrius yolofo</i> Guér. (as <i>purpureus</i> Westw.)	12 + XY	Nuamah, 1982
<i>Andrallus spinidens</i> F.	12 + XY	Satapathy et al., 1990
<i>Dinorhynchus dybowski</i> Jak.	16 + XY	Muramoto, 1981
<i>Macrorhaphis acuta</i> Dall.	12 + XY	Nuamah, 1982
<i>Picromerus</i> sp.	12 + XY	Dey & Wangdi, 1985
<i>Podisus distinctus</i> Stål	14 + XY	Rebagliati et al., 2002
<i>Podisus nigripinus</i> Dall.	14 + XY	Rebagliati et al., 2002

Subfamily Pentatominac

Tribe Halyini

<i>Atlocera serrata</i> F.	12 + XY	Nuamah, 1982
<i>Cahara jugatoria</i> Leth.	2n=14	Dey & Wangdi, 1988
<i>Erthesina fullo</i> Thunb.	12 + XY	Mittal & Leelamma, 1981
<i>Halys serricollis</i> Westw. (as <i>parvus</i> Chopra)	12 + XY	Mittal & Leelamma, 1981

Tribe Pentatomini

<i>Acletra</i> sp.	12 + XY	Rebagliati et al., 2002
<i>Acrosternum</i> (as <i>Nezara</i>) <i>gramineum</i> F.	12 + XY	Mittal & Leelamma, 1981
<i>Acrosternum heegeri</i> Fieb.	12 + XY	Nuamah, 1982
<i>Aeliomorpha</i> sp. nr. <i>griseoflava</i> Stål	12 + XY	Nuamah, 1982
<i>Aeliomorpha lineatocollis</i> Westw.	12 + XY	Mittal & Leelamma, 1981
<i>Aeptus singularis</i> Dall.	12 + XY	Nuamah, 1982
<i>Aethemenes nigropunctata</i> Sign. (as <i>chloris</i> Westw.)	12 + XY	Nuamah, 1982
<i>Antestia</i> sp.	12 + XY	Nuamah, 1982
<i>Antestia</i> sp. s.l.	12 + XY	Nuamah, 1982
<i>Antestia</i> sp.? <i>immunda</i> L.	12 + XY	Nuamah, 1982
<i>Antestia</i> (as <i>Farnya</i>) <i>versicolor</i> Dist.	12 + XY	Nuamah, 1982
<i>Antestiopsis</i> (as <i>Antestia</i>) <i>cruciata</i> F.	12 + XY	Manna, 1951
<i>Antestiopsis</i> sp. s.l.	12 + XY	Nuamah, 1982
<i>Aspavia acuminata</i> Mont.	12 + XY	Nuamah, 1982
<i>Aspavia armigera</i> F.	12 + XY	Nuamah, 1982
<i>Aspavia hastator</i> F.	12 + XY	Nuamah, 1982
<i>Aspavia ingens</i> Dist.	12 + XY	Nuamah, 1982
<i>Banasa alboapicata</i> Stål	24 + XY	Thomas & Yonke, 1981
<i>Banasa angulobata</i> Thomas	24 + XY	Thomas & Yonke, 1981
<i>Banasa derivata</i> Walk.	24 + XY	Thomas & Yonke, 1981
<i>Banasa excavata</i> Thomas	24 + XY	Thomas & Yonke, 1981
<i>Banasa packardii</i> Stål	24 + XY	Thomas & Yonke, 1981
<i>Banasa rolstoni</i> Thomas & Yonke	14 + XY	Thomas & Yonke, 1981
<i>Banasa sordida</i> Uhl.	24 + XY	Thomas & Yonke, 1981
<i>Banasa subcarnea</i> Van Duzee	24 + XY	Thomas & Yonke, 1981
<i>Bathycœlia rodhaini</i> Schout.	12 + XY	Nuamah, 1982
<i>Bathycœlia thalassina</i> H.-S.	12 + XY	Nuamah, 1982
<i>Benia</i> sp. A	12 + XY	Nuamah, 1982
<i>Carbula aliena</i> Dist.	12 + XY	Mittal & Leelamma, 1981
<i>Carbula biguttata</i> F.	12 + XY	Yosida, 1956; Satapathy & Patnaik, 1988
<i>Carbula capito</i> Stål	12 + XY	Nuamah, 1982
<i>Carbula carbula</i> Dist.	12 + XY	Nuamah, 1982
<i>Carbula indica</i> Westw.	12 + XY	Dey & Wangdi, 1988
<i>Carbula insocia</i> Walk.	12 + XY	Mittal & Leelamma, 1981
<i>Carbula limpoonis</i> Stål (as <i>marginella</i> Thunb.)	12 + XY	Nuamah, 1982
<i>Carbula melacantha</i> F.	12 + XY	Nuamah, 1982
<i>Carbula scutellata</i> Dist.	12 + XY	Mittal & Leelamma, 1981
<i>Carbula</i> sp. nr. <i>sjostedti</i> Schout.	12 + XY	Nuamah, 1982

<i>Caura pugillator</i> F.	12 + XY	Nuamah, 1982
<i>Dichelops furcatus</i> F.	10 + XY	Rebagliati et al., 2001
<i>Dichelops melacanthus</i> Dall.	10 + XY	Rebagliati et al., 2002
<i>Diploxys bipunctata</i> Am. & Serv.	12 + XY	Nuamah, 1982
<i>Diploxys</i> (as <i>Amayosana</i>) <i>punctata</i> Dist.	12 + XY	Nuamah, 1982
<i>Dunnius</i> sp.	14 + XY	Dey & Wangdi, 1988
<i>Durmia haedula</i> Stål	12 + XY	Nuamah, 1982
<i>Durmia lutulenta</i> Stål	12 + XY	Nuamah, 1982
<i>Durmia</i> sp.	12 + XY	Nuamah, 1982
<i>Dymantis grisea</i> Jen.-Haar.	12 + XY	Nuamah, 1982
<i>Eysarcoris fallax</i> Breddin	12 + XY	Muramoto, 1978
<i>Gynenica affinis</i> Dist.	14 + XY	Satapathy & Patnaik, 1989
<i>Halyomorpha annulicornis</i> Sign.	12 + XY	Nuamah, 1982
<i>Halyomorpha reflexa</i> Sign.	12 + XY	Nuamah, 1982
<i>Lerida punctata</i> P.B.	12 + XY	Nuamah, 1982
<i>Loxa deducta</i> Walk.	12 + XY	Rebagliati et al., 2001
<i>Mecocephala</i> sp.	10 + XY	Rebagliati et al., 2002
<i>Menida histrio</i> F.	12 + XY	Satapathy et al., 1990
<i>Mormidea paupercula</i> Berg	14 + XY	Rebagliati et al., 2002
<i>Morna</i> sp.	12 + XY	Muramoto, 1979
<i>Nezara icterica</i> Horv.	12 + XY	Manna & Deb-Mallick, 1981
<i>Niphe subferruginea</i> Westw.	12 + XY	Parshad, 1957
<i>Pentatoma semiannulata</i> Motsch. (as <i>armandi</i> Fallou)	12 + XY	Zhang & Zheng, 1999
<i>Piezodorus guildinii</i> Westw.	12 + XY	Rebagliati et al., 2001
<i>Placosternum taurus</i> F.	12 + XY	Dey & Wangdi, 1985
<i>Plautia brunnipennis</i> Sign.	12 + XY	Muramoto, 1979
<i>Priassus spiniger</i> Hagl.	12 + XY	Mittal & Leelamma, 1981
<i>Proxys albopunctulatus</i> P.B.	12 + XY	Rebagliati et al., 2001
<i>Rhynchocoris humeralis</i> Thunb.	12 + XY	Mittal & Leelamma, 1981
<i>Rolstoniellus</i> (as <i>Compastes</i>) <i>boutanicus</i> Dall.	2n=14	Dey & Wangdi, 1988
<i>Sabaeus humeralis</i> Dall.	12 + XY	Manna & Deb-Mallick, 1981
<i>Sepontia misella</i> Stål	12 + XY	Nuamah, 1982
<i>Tolumnia latipes</i> Dall.	12 + XY	Mittal & Leelamma, 1981
<i>Tyoma verrucosa</i> Mont.	12 + XY	Nuamah, 1982
<i>Veterna sanguineirostris</i> Thunb.	12 + XY	Nuamah, 1982
Tribe Strachiini		
<i>Stenozygum coloratum</i> Klug	12 + XY	Nuamah, 1982
Tribe Edessini		
<i>Edessa mediatibunda</i> F.	12 + XY	Rebagliati et al., 2003
Tribe Discocephalini		
<i>Dinocoris prolineatus</i> Becker & Grazia	12 + XY	Rebagliati et al., 2001
<i>Macropygium</i> sp.	12 + XY	Rebagliati et al., 2002
Subfamily Phyllocephalinae		
<i>Macrina juvenca</i> Burm.	12 + XY	Nuamah, 1982

Subfamily Podopinae

<i>Scotinophara coarctata</i> F.	10 + XY	Satapathy et al., 1990
<i>Scotinophara fibulata</i> Germ.	12 + XY	Nuamah, 1982
<i>Stortheocoris nigriceps</i> Horv.	12 + XY	Mittal & Leelamma, 1981

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