Table of measurements

Length of antennal joints:	37 + 64 + 37 + 62		
Breadth of pronotum:	62		
Length of femora:	fore	middle	hind
	73	80	100
Length of tibiae:	70	84	145

1 unit = 0.038 mm.

Type, a female, Israel, Wadi Wefekh, in my collection.

Discussion: The following light coloured species with unicoloured yellow paratergites of the genus *Dicranocephalus* have been described from the Palearctic Region: *D.pallidus* (SIGN.) from Arabia, later recorded also from Egypt and Algeria, *D. mairei* (BERGEV.) from Algeria, *D.propinquus* (BERGEV.) from Algeria, *D.berlandi* (VILL.) from the Sahara and the Cape Verde Islands, *D.panelii* LDB. from the Cape Verde Islands, *D.marginatus* (FR.) with Irano-Turanian distribution and *D.putoni* (HV.) from Turkey. The new species is most closely related to *D.mairei* and to *D.panelii*. In *D.mairei* the 1st antennal joint is not provided with setae, the 2nd joint is twice as long as the 1st, the 3rd joint has no setae basally and the 4th joint is as long as the 2nd, the femora have no setae and the 1st joint of the hind tarsi is 3 × as long as the other joints together. According to the figure in the original description (BERGEVIN 1930, p. 26), the anterior portion of the head seems also to be narrower and longer, the antennae and legs somewhat longer and more gracile and the venation of the membrane sparser. *D. panelii* is smaller and lighter, with shorter legs and different proportions between the antennal joints. *D.pallidus*, *D.berlandi* and *D.propinquus* have only short hairs on the antennae and legs. In *D.marginatus* and *D.putoni* the hairs of the antennae are also short and in addition the 2nd antennal joint is at least apically and basally dark.

Literature cited: BERGEVIN, E. 1930: Description de deux espéces nouvelles de Stenocephalus, provenant du Hoggar, et recueillis par M. de Peyerimhoff. Bull. Soc. Hist. Nat. Afr. du Nord 1930 p. 24-26. – LINNAVUORI, R. 1960: Hemiptera of Israel. Part I. Ann. Zool. Soc. »Vanamo» 22: 1, p. 1–71.

New Palearctic Hemiptera.

R. LINNAVUORI

1. *Brachynema ishiharai* n.sp. (*Pentatomidae*).

♂. Length 11 mm. Head yellowish; genae tinged with olive-green; densely and roughly punctated with black, with the exception of the apical margin. Eyes brown; ocelli reddish. 1st antennal joint yellowish with a brown lateral stripe, other joints brown. Pronotum olive-green, tinged with brownish yellow laterally and

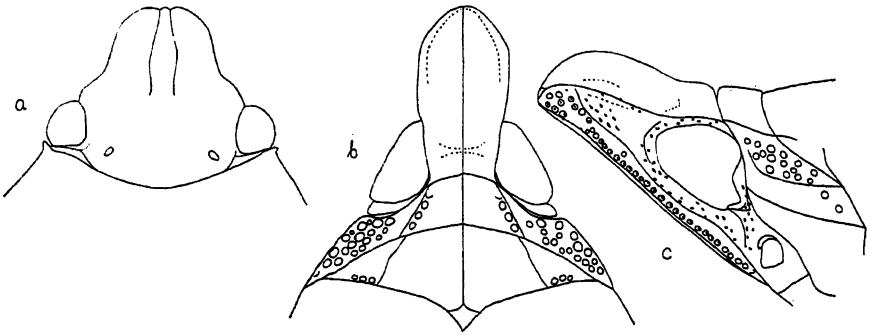

Fig. 1. *Brachynema ishiharai* n.sp.: a head. – *Bursinia globiceps* n.sp.: b head and thorax, dorsal view; c same, lateral view. – Orig.

anteriorly; humeral angles somewhat tinged with reddish; lateral margins olive-green. Entire pronotum roughly punctated with black. Scutellum olive-green, densely and roughly punctated with black; apex broadly smooth and yellowish white. Elytra dark reddish with lateral margins bright olive-green; corium and clavus roughly and densely punctated with black, puncturing of lateral margin somewhat sparser; membrane brown. Abdomen yellowish; connexivum greenish yellow, a small black roundish spot at the basal lateral angle of each segment. Under surface light ochraceous; puncturing rather dense and fine, of the ground colouring. Legs light ochraceous, tibiae tinged with green.

Body elongate and rather parallel-sided, 2.1 × as long as broad. Head (fig. 1 a) relatively short, 1.26 × as long as broad; stylus as long as genae; vertex 3.68 × as broad as eye. Proportions between antennal joints 10: 15: 21:? (1 unit = 0.038 mm.). Pronotum 2.3 × as broad behind as long; lateral margins rather straight; antero-lateral angles with a small tooth, humeral angles broadly rounded. Elytra conspicuously longer than abdomen.

Type, a male, Japan, Kohotoke near Tokyo, 28. VII. 1935, Z. TOKEJI leg., in my collection.

Easily distinguished by the shape of the head and the peculiar colouring. The species is named after Prof. TAMOTSU ISHIHARA of Matsuyama, Japan, who sent me the species for my collection.

2. *Anthocoris pilosus* (JAK.) ssp. *tschuensis* n.ssp. (*Anthocoridae*).

Length 3.15 – 3.45 mm. Head, antennae, pronotum and scutellum black; 2nd antennal joint sometimes reddish yellow basally. Elytra yellowish brown; lateral margin of cuneus and apical part of costal margin darker brown, sometimes also apex of clavus slightly infumed; membrane light whitish brown without dark spots. Under surface black. Femora dark brown, apex of femora, tibiae and tarsi yellowish.

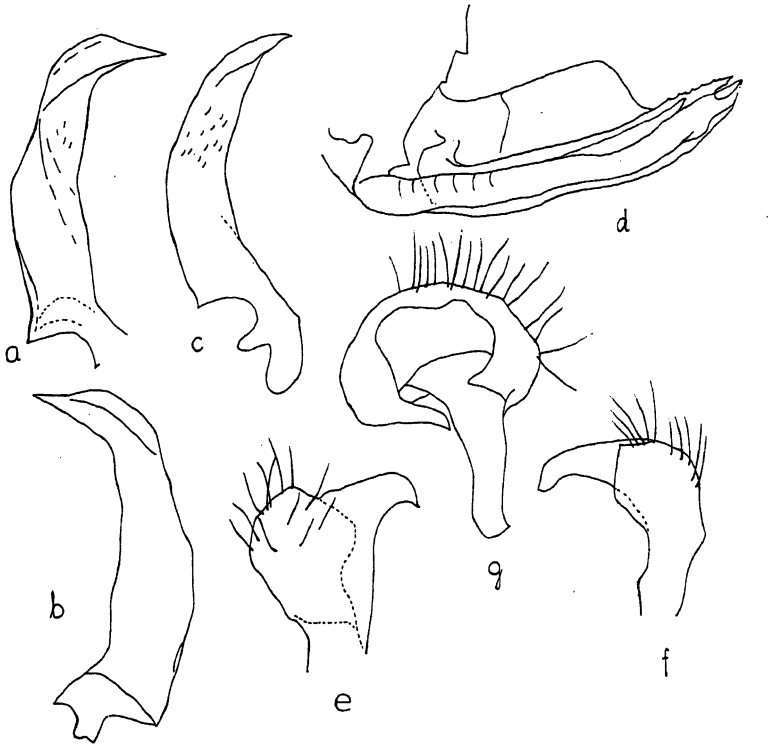

Fig. 2. *Anthocoris pilosus tschuensis* n.ssp.: a and b stylus in different aspects. – *A. pilosus* (JAK.) nominate form (specimen from Finland): c stylus in the same aspect as fig. 2 a. – *Orthotylus viridissimus* n.sp.: d penis; e and f right stylus in different aspects; g left stylus, median aspect. – Orig.

Body as in the nominate form, but considerably smaller. Male genitalia: Stylus (fig. 2 a, b) relatively straight, apex sharp-tipped and rather strongly bent.

Type, a male; allotype, a female and 4 paratypes, Turkestan, Fl. Tschu J. SAHLBERG. Type and allotype in my collection, paratypes in the Entomological Museum of the Finnish University in Turku.

The nominate form is robuster, length (at least in Finnish specimens) 3.75 – 4.05 mm., the elytra are darker, with the cuneus, the apical part of the corium and the base of the clavus ± blackish brown; the membrane is whitish, with the apex distinctly dark brown, and the stylus (fig. 2 c) is somewhat more strongly curved. *A. persicus* E. WGN. has the pronotum dull and the stylus very strongly recurved apically.

3. *Orthotylus viridissimus* n.sp. (*Miridae*).

Length 3.4 – 3.6 mm. Head and anterior part of pronotum lighter green. Eyes light grey. Antennae light ochraceous, last joints slightly infuscate. Other parts

of pronotum, scutellum and elytra bright green; membrane light smoky, veins green. Under surface light greenish, tinged with yellow. Legs greenish yellow.

Length 3.4 – 3.6 mm. Body elongate and gracile, 4 × as long as broad at pronotum (♂) or elongately ovate, 3.2 × as long as broad at pronotum (♀). Head 0.7 × as broad as pronotum behind; vertex 2.1 × (♂) or 2.75 × (♀) as broad as eye. Proportions between antennal joints 7+32+25+9 (♂) or 7 + 30 + 25 + 11 (♀) (1 unit = 0.038 mm.), 2nd joint 1.28 × (♂) or 1.1 × (♀) as long as basal width of pronotum. Pronotum 2.45 – 2.50 × as broad as long. Hair covering of upper surface rather long and dense, consisting of shorter silvery-white hairs and of longer and more erect brownish hairs. Rostrum short, extending to middle coxae. 3rd joint of hind tarsi as long as 2nd. Male genitalia; Right stylus (fig. 2 e, f) with sensory lobe bluntly roundedly angled, hypophysis stout, recurved ventrad apically. Left stylus (fig. 2 g) with sensory lobe ending in a triangular tooth, hypophysis somewhat curved ventrad. Penis (fig. 2 d) simple, apex minutely serrate.

Type, a male; allotype, a female and 7 paratypes, Turkestan, Ashabad 26. VI. 1906, AHNGER. Type, allotype and paratypes in my collection, paratypes in the Zoological Museum of Helsinki University.

The species was determined as *O. salicis* JAK. *O. salicis* is, however, bigger (length 5.25 – 5.5 mm.) and the antennae of the male are blackish with the 1st joint black. The new species is closely related to *O. schoberiae* RT. and *O. minutus* JAK., differing, however, in the longer antennae and in the male genital characters.

4. *Bursinia globiceps* n.sp. (*Dictyopharidae*).

♂. Fig. 1 b, c. Face pale brown, minutely spotted with dark brown laterally. Crown shining, pale greenish grey, base and sides tinged with brownish. Eyes grey. Pronotum rather dull, pale brownish. Scutellum rather dull, greyish white, brownish laterally, apex darker brown. Elytra rather dull, pale brown; a broad, although somewhat obscure, whitish transverse band near the apical margin. Abdomen, under surface and legs pale brown. Anterior legs with dark longitudinal stripes.

Body broadly oval, 2.13 × as long as broad. Crown 2.1 × as long as basal width, 3.9 × as long as pronotum, conspicuously robust, distinctly broadening apically (1.19 × as broad apically as basally), strongly convex, with a sharp median ridge, lateral and apical margins sharp. Face with a very sharp median ridge extending from apex of anteclypeus to upper margin of head; frons in addition with 2 sharp longitudinal ridges on either side of the median ridge, the lateral ones not reaching the apical margin of the head; area between the lateral ridges provided with round pits. Lateral margins of pronotum with 2 ridges, 2 round basal pits present between them; disk of pronotum sloping laterad, 2 longitudinal ridges present, lateral area of pronotum with numerous round pits. Scutellum

with 3 ridges, apex swollen; 3 round pits along basal margin on either side laterally. Elytra squarish, extending to 4th tergite; veins rather obscure, of the ground colouring. The visible tergites with a row of 4 round pits on either side laterally. Legs long and strong, hind tibiae with a row of 6 – 7 black-tipped spines. Rostrum extending nearly to the apex of the abdomen. Male genitalia: Anal tube elliptical. Genital plates sharply triangular. ♀ unknown.

Type, a male, Sardinia, Calasetta, 18. VII. 1951, A. SERVADEI, in my collection.

The new species closely resembles *B. socors* HV. from Algeria. In this species, however, the head is considerably longer and narrower, parallel-sided and less convex, the elytra are without the whitish band and the elytral veins are reddish and more distinct and more branched apically. *B. bouvieri* BGV. from Algeria is shorter and broader and the crown is not expanded apically. The other species of the genus differ in the much longer and narrower head.

On the occurrence of pectin polygalacturonase in the salivary glands of Heteroptera and Homoptera Auchenorrhyncha.

SEPPO LAUREMA and PEKKA NUORTEVA

Zoological Institute, University of Helsinki

The occurrence of pectin polygalacturonase (pectinase) in the saliva of some *Hemiptera* has recently been reported by ADAMS & MCALLAN (1956, 1958) and MCALLAN & CAMERON (1956). These studies were mainly concerned with aphids, and only a few other *Hemiptera* were tested. The only heteropterous bug examined was the lygaeid *Liocoris lineolaris* (BEAUV.) and the only auchenorrhynchous homopteran examined was *Dalbulus maidis* (DEL. & WOHL.). Pectin polygalacturonase was noted in the saliva of both these insects, as well as in the bulk of other Hemiptera species investigated.

The purpose of the present study was to investigate the occurrence of polygalacturonase in other *Heteroptera* and *Homoptera Auchenorrhyncha*.

Material and methods.

The tests were carried out with a substrate prepared as follows: 2 g of pectic acid (Nutritional Biochemicals Co., Cleveland) were added to 50 ml of 0.1 N sodium hydroxide solution and the pH value adjusted to slight acidity by adding