

spotted and dotted with brown, the tibiae with a brown dot at base of many of the spines, tarsal joints interrupted with brown.

Length to tip of wing-covers, $4\frac{1}{2}$ mm.; width of pronotum, $1\frac{1}{4}$ mm.

Type.—No. 3130, U.S.N.M.

Only two specimens of this modest little species are in the collection. It somewhat resembles *Jassus seminudus*, Say, in pattern of marking and colors, but it is a much wider insect, more wedge-shaped posteriorly, and with a more acute vertex.

LIMOTETRIX?, species.

Twelve specimens of a long and narrow species related to *Deltocephalus* are present in one of the boxes. This insect has so much resemblance to the European insects of this type that I hesitate to describe it, believing that it must have been published heretofore by some of the German or Scandinavian entomologists.

The Psyllidæ of the collection have been worked up by Mr. E. A. Schwarz, and his descriptions are herewith appended.

ANOMONEURA, Schwarz, new genus.

Head strongly inclined; plates of vertex anteriorly obliquely truncate and subtriangularly produced near the anterior ocellus; frontal processes cone-shaped, depressed below the level of the vertex; eyes large globular; anterior ocellus visible from above; antennæ long and slender; third joint much longer and thinner than the second. Pronotum strongly ascending posteriorly, lateral impressions distinct; dorsulum transverse, slightly ascending posteriorly. Fore wings elongate, membranous, of equal width from middle to apical fourth, apical edge rounded but not regularly so, the tip of the wing being much nearer to the anterior than to the posterior costa; petiolus cubiti about half the length of the discoidal part of subcosta; a long pterostigma; radius slightly curved and normal at its basal half, beyond the middle giving forth two (sometimes three, or even four) parallel cross veins which run obliquely through the radial cell to the outer costa; at apical fourth the radius bifurcates, thus forming a large marginal cell, which is crossed by the fourth furcal vein; stem of second fork greatly arched at basal half; discoidal cell closed, first marginal cell much smaller than the second; fourth furcal vein running in the tip of the wing; hind tibiae not toothed at base; genital plate and forceps of male without appendages.

Belongs to the tribe Psyllini and agrees with the genus *Psylla* (as defined by Fr. Lœw) in shape of the body and in formation of cephalic parts, but differs in the form of the fore wings, and more especially in the venation. The latter is altogether most unusual, and would have been considered as an accidental abnormality if a single specimen only had been examined. The number of accessorial veins connecting the

radius with the outer costa varies from two to four; if there are only two or three, one or the other of them occasionally bifurcates, the bifurcation beginning either near the base or in the middle of the vein.

ANOMONEURA MORI, Schwarz, new species.

Body rather stout, opaque, very finely aciculate, pale yellowish green, or greenish yellow, or pale ocherous, dorsulum and mesonotum with faint markings of a more decided yellow color. Posterior margin of head strongly emarginate, vertex nearly flat, along the median line slightly shorter than half its width at base, nearly parallel between the eyes, anteriorly obliquatus truncate and slightly triangularly produced; discal impressions small but continued anteriorly in an oblique line; frontal processes hairy, as long as the vertex at middle, obtusely triangular, contiguous and broad at base, divergent apically. Antennae longer than head and thorax combined, filiform, pale yellow, joint 3 slightly longer than 4, joints 4 to 8 subequal in length, tipped with black, joints 9 and 10 entirely black.

Pronotum at middle slightly longer than at the sides, as long as the vertex, anterior edge strongly convex, posterior edge slightly concave; dorsulum at middle nearly twice shorter than its width and decidedly longer than the vertex, anteriorly much more arched than posteriorly.

Fore wings about two and one-half times longer than wide, widest part at apical third, slightly whitish but transparent, with a series of brownish spots on the costa from the outer corner of the clavus to the first branch of the radius; also with numerous small brown dots along the furcal veins and the branches of the radius. Veins moderately fine, pale ocherous, anterior costa nearly straight to within a short distance from the tip, posterior costa beginning to arch at apical fourth; the tip of the wing is therefore not in the middle of the apex, but much nearer the anterior costa than to the posterior costa; discoidal part of subcosta slightly shorter than the basal part, stigma tolerably long, but narrow and not closed; radius as described in the generic description; stem of first (inner) fork longer than the basal part of subcosta, first furcal vein very short, forming an obtuse angle with the stem; second furcal forming an obtuse angle with the stem, abruptly bent beyond its middle and terminating rectangularly on the costa; stem of second fork greatly arching at basal half, straight and parallel with the first stem at terminal half, third furcal vein forming the straight continuation of the stem, fourth furcal continued across the outermost branch of the radius, decidedly longer than the third furcal and terminating in the tip of the wing. Metacoxal processes rather blunt at tip; legs pale greenish or yellowish; tarsi darker.

Male.—Genital plate slightly longer than the genital segment, without lateral lobes, straight, rather broad, about four times higher than wide, hardly narrowing apically; forceps, when viewed from the side, slightly narrower and about one-fifth shorter than the plate, simple,

pointed at tip, front edge slightly convex, hind edge straight; when viewed from behind, the two lobes of the forceps are separated by a narrow slit, the sides of which are not arcuate, but converge gradually toward the tip.

Female.—Genital segment a little longer than the two preceding ventral segments combined; valves normal and gradually narrowing toward the tips, which are moderately acute; upper edge of upper valve (when viewed from the side) slightly concave, lower valve shorter than the upper, and with its lower edge convex.

Type.—No. 3410, U.S.N.M.

The collection contains three female specimens, No. 1154 marked 2367. I have also seen four other specimens (two males, two females) collected in Japan by Mr. Albert Koebele, who writes that this species is very injurious to mulberry and a serious drawback to sericulture.

PSYLLA PYRISUGA Fœrster.

The collection contains eight specimens, No. 1150, which in no way differ from European specimens. The synonymy of this species is given by Dr. Franz Löw.¹

¹ Ver. K. K. Zool.-Bot. Ges. Wein, XXXII, p. 427 (1882).

SUMMARY OF THE HEMIPTERA OF JAPAN, PRESENTED
TO THE UNITED STATES NATIONAL MUSEUM BY PRO-
FESSOR MITZUKURI.

By PHILIP R. UHLER,
President of the Maryland Academy of Sciences.

THE FOLLOWING list, with the descriptions of species supposed to be new to science, includes the collection of Japanese Hemiptera, which was exhibited at the World's Columbian Exposition in Chicago, and subsequently presented to the United States National Museum by Doctor K. Mitzukuri, Professor at the Imperial University of Tokio, Japan. It embraces the greatest number of species of this order which have thus far been made accessible for scientific study. The museums of Europe are not rich in collections of these insects from Japan, and it is only within the last twenty-five years that much attention has been given to their acquisition. Thunberg was the first to describe any considerable number of the species, and a lapse of thirty-five years took place before Motschulsky next took up the subject and described a few additional species. The later authors who have recently made known the largest proportion of the species are Messrs. Scott, Distant, and Horvath, but they seem to have been unacquainted with a considerable number of the species enumerated in the present paper.

In all, about 137 species are present in this collection, and they appear to have been taken generally in the more southern and warmer parts of the islands. A few more than twenty species described from other localities in the Empire are not among those here recorded, but they are only a small part of the ample fauna yet to be recognized when the various districts of the country shall have been closely examined.

Suborder HETEROPTERA.

Family ARTHROPTERIDÆ.

COPTOSOMA CRIBRARIA, Fabricius.

Coptosoma cribraria, FABRICIUS, Ent. Syst. Supp., p. 551.

Thirteen specimens are in this collection.

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