

Mr. Banks whether these were Texas species and would introduce a new element into the spider fauna of the District of Columbia. Mr. Banks replied that they were probably species which were already wide-spread, since this is the case with nearly all species of spiders which inhabit houses.

Dr. Gill spoke at length on the subject of the relative value of different groups of animals from the faunistic standpoint. He showed that we must consider the problem not only from the morphological but also from the paleontological standpoint and illustrated this point in a somewhat detailed consideration of some of the striking features of the vertebrate faunas of South America, Africa and India, deducing from this consideration the conclusion that the primitive faunas of South America and Africa were derived from the same common source, while the forms common to or similar to each other in Africa and India were derived from a common source at a later period. This means that South America and Africa were connected at an early period and that the connection between Africa and India was made at a comparatively recent date. He contended that the fresh-water fishes are the best group for the study of questions of geographical distribution, largely on account of their necessary restriction to the bodies of water which they inhabit. He showed that while the mollusks in particular, and also the insects, have changed comparatively little since relatively early geological times, the mammals have changed very greatly and the fishes occupy in this respect a position intermediate between the mollusks and insects on the one hand and mammals on the other.

Mr. Banks stated that, in his opinion, water forms are not as good as land forms for the study of geographical distribution; at all events this is the case with aquatic insects and arachnids. Fishes are by no means so limited in their distribution as land forms.

Mr. Marlatt spoke of the extraordinary distribution of *Bryobia pratensis*, which occurs from New England to California, and is known in the mountains of Montana at an elevation of 7,000 or 8,000 feet, remote from civilization, and also in the Southern States. What is probably the same species also occurs in Europe and in Australia. He considered this one of the most extraordinary instances of distribution known. Mr. Banks thought that

this species was simply an ordinary cosmopolite and showed that a number of other mites which he especially mentioned are also practically cosmopolitan. Mr. Howard called attention to the fact that this clover mite is peculiarly adapted to a commercial distribution. It may and probably has been carried commercially on nursery stock all over the world, while from the habits of the adults in crawling great distances in search of hibernating quarters it may be carried on anything coming from the household, or even upon the bodies of animals. Mr. Marlatt said that the occurrence of this insect upon cultivated trees and in households had only recently been recognized, and that its wide distribution was probably of very early occurrence. Mr. Schwarz stated that the occurrence of this *Bryobia* on very high mountains is very remarkable. Mr. Hubbard and himself have found it during the month of June in the Wasatch Mountains of Utah, at an elevation of from 10,000 to 11,000 feet. The eggs occurred in such quantities under stones between the snow fields that they could be scraped up by quarts.

—The next paper, which was presented by Mr. Schwarz, was entitled:

NOTE ON THE CEDRELA PSYLLIDS (GENUS FREYSUILA ALEMAN).

By E. A. SCHWARZ.

Many years ago, the late Dr. Eugene Dugès, of Guanajuato, Mex., sent to the lamented Dr. C. V. Riley some badly preserved specimens of a remarkable Psyllid, with the statement that this insect was greatly injurious to *Cedrela* trees.* They were then considered as belonging to an undescribed genus and species. What appears to be the same species was sent some years later by Dr. A. Ernst, from Caracas, Venezuela, and by Mr. F. W. Urich, from the island of Trinidad, W. I., the species being in either case marked as being injurious to *Cedrela* trees. Finally, in 1896, Dr. Alfred Dugès, of Guanajuato, Mex., forwarded additional specimens to Dr. L. O. Howard, with the statement that this Psyllid had been described by Dr. J. Aleman, under the name of *Frey-Suila dugesii*.

* *Cedrela* belongs to the family Sterculiaceæ. The wood of *C. odorata* (and perhaps also of other species of the same genus) has of late years acquired considerable economic importance, and it is stated that it is never attacked by any insect, not even the termites,

EndNote
18.8.05

Dr. Aleman's account and descriptions extend over several pages in *La Naturaleza*, but are far from being satisfactory. In his descriptions he gives only characters common to all Psyllids, but the genus is recognizable from the rough figures.

I give herewith a more detailed description of this remarkable genus, for which the name proposed by Aleman has to be retained with a slight change.

GENUS FREYSUILA ALEMAN.

Frey-Suila Aleman, *La Naturaleza* (2) 1, No. 1, 1887, pp. 21-26, lab. III.

Body robust. Vertex transverse, broadly excavated longitudinally along the median line, its front margin triangularly notched at middle, greatly elevated and obliquely truncate on each side of the excision; eyes large, prominent, the tempora well developed behind them: anterior ocellus not visible from above; frontal processes absent and represented on the under-side of the head by a protuberance on each side beneath the antennal base and in front of the large knob-shaped clypeus. Antenna—unusually long; first two joints short and thick as usual, third joint extremely long, much wider than the following joints, densely asperate and densely pubescent, slightly tapering at apical portion, joints 4 and the following very thin and slender.

Pronotum and dorsulum greatly ascending posteriorly, the former slightly emarginate behind, lateral impressions shallow and continent; dorsulum transverse, anterior margin hardly less convex than the posterior margin.

Elytra hyaline, membranaceous, elongate-oval, gently widening from base to apical third, apex broadly and regularly rounded: cubitus as long as, or slightly shorter than, discoidal part of subcosta; a distinct pterostigma, stem of second fork not parallel with radius; tip of wing at the termination of the 4th furcal or close to it within the second marginal cell; legs extremely long and slender, tibiae not dentate at base, tarsi normal; genital plate of male without lateral appendage, genital segment of female short.

The genus is readily known by the form of the antennae and the very long legs. The front margin of the head recalls that of *Homotoma* (Psyllinae) and *Rhinopsylla* (Triozinae), but in both of these genera the vertex is more or less flattened. *Freysuila* is difficult to place in Dr. Fr. Loew's arrangement of the subfamilies of Psyllidae, but if we adopt his system the genus can only be placed among the Aphalarinae. However, this subfamily is very badly defined, and is either not separable from the Psyllinae, or an entirely new arrangement of the genera has to take place. At any rate the genus differs from all genera placed among the Aphalarinae by the great length and slenderness of the antennae and the remarkable development of the third antennal joint.

The type of the genus is *F. dugesii* Aleman described from Guanajuato, Mexico; two other forms, which are either strongly marked varieties, or closely allied species, are known from Caracas, Venezuela, and Trinidad, West Indies. These three forms may be distinguished as follows:

Third antennal joint at most twice the length of the fourth, either entirely ochreous or pale only at base. Head and thorax without definite black markings.

Third antennal joint almost twice as long as the fourth; fore-wings narrower, more narrowly rounded at apex; fourth furcal running into the tip of the wing (Guanajuato, Mex.) *dugesii* Aleman.

Third antennal joint only one-third longer than the fourth; fore-wings wider, broadly rounded at apex; tip of wing within the 2d marginal cell (Caracas, Venezuela). var. *erustii* Schwarz.

Third antennal joint at least two and one-half times longer than the fourth.

Head and thorax with well defined black markings; fore-wings broadly rounded at apex; fourth furcal running into the tip of the wing; third antennal joint black (Trinidad, West Indies). var. *cedrele* Schwarz.

In discussing this paper Mr. Ashmead stated that the very remarkable antennae of *Freysuila*, which resembled in fact those of the saw-fly genus *Xyela*, would warrant the erection by Mr. Schwarz of at least a new tribe.

Some discussion ensued between Messrs. Gill, Ashmead, and Schwarz as to the advisability of forcing a form like this into the dichotomous table in preference to putting it aside and forming a new group. The discussion took a general turn, and Messrs. Gill and Ashmead favored the last view and Mr. Schwarz the former.

JUNE 17, 1897.

President Marlatt in the chair and Messrs. Gill, Benton, Motter, Pratt, Waite, Chittenden, Ashmead, Schwarz, Patten, Howard, Heidemann, Fernow, Hine, and Matthis also present.

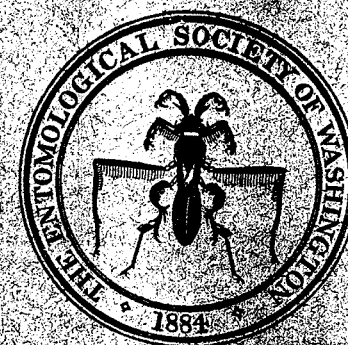
—Mr. Schwarz exhibited specimens of a probable new species of the genus *Telegeusis* Horn (family Drilidas), collected by Mr. Hubbard at the Hot Springs (southwestern foot of Galiuro Mts.), Arizona, and spoke at some length of the remarkable palpi possessed by this genus. Mr. Ashmead asked why the palpi in certain genera in many groups are so prolonged. He noted a

CONTENTS OF THIS NUMBER.

	PAGE.
ASHMEAD, W. H.: Descriptions of five new hymenopterous parasites on <i>Canarsia hammondi</i> , 124; A new species of <i>Roptronia</i>	132
ASHMEAD, W. H., and DIMMOCK, G.: Notes on some parasitic Hymenoptera, with descriptions of new species.....	148
BANKS, N.: Three new species of Chrysopidæ.....	173
CHITTENDEN, F. H.: On the parasites of adult Coleoptera	75
COCKERELL, T. D. A.: Miscellaneous notes, 64; Insects impaling themselves.....	124
FOX, W. J.: The species of <i>Pepsis</i> inhabiting America north of Mexico	140
HOPKINS, A. D.: Notes on Scolytidæ (abstract)	81
HOWARD, L. O.: Some notes on the parasites of <i>Orgyia leucostigma</i> (abstract), 60; Some parasites of Coccidæ, with descriptions of two new genera of Aphelininæ.....	133
JOHNSON, W. G.: Notes on the Morelos orange fruit worm	53
MARLATT, C. L.: Historical survey of the science of entomology.....	83
SCHWARZ, E. A.: A new cave-inhabiting Silphid, 57; Notes on the leep insects of Australia.....	66
SMITH, J. B.: A classification of the orders of insects.....	80

PROCEEDINGS OF THE ENTOMOLOGICAL SOCIETY

OF
WASHINGTON.



Volume IV, No. 3.
(May 13, 1897, to December 1, 1898.)
[Issued May 23, 1899.]

WASHINGTON, D. C.
PRINTED BY THE SOCIETY.
1899.