

minimum of \$100,000.00 of Government Funds. The amount of private funds available for the present year is at present uncertain and cannot be reported on.

All things considered it is felt that an excellent start in the direction of extermination has been made.

CHAIRMAN RUGGLES: We have one paper this morning that is not on the program. I am sure you will be glad to hear from Mr. Borodin who has a message from Russia and we will allow him a few minutes.

THE PRESENT STATUS OF ENTOMOLOGY AND ENTOMOLOGISTS IN RUSSIA

By D. N. BORODIN

American Entomologists have been in close contact with the Russian Colleagues until 1915, but since that time relations have not been re-established. However, in spite of the Chinese Wall surrounding Russia, some news from there is reaching this country.

From a series of letters, which have been received, one may get some idea as to what has become of the Russian Entomologists and in what direction the work is now being carried on. First of all, it will be necessary to present a long list of those Russian workers, who died during the War, revolutions and famine. The majority of American colleagues are undoubtedly familiar with the article by Mr. Y. A. G. Rehn, which appeared in the "Entomological News," Vol. XXXII, No. 7, July 1921 and entitled "An Appeal from Russian Fellow Entomologists." It may be well, however, to repeat this list here, supplementing it by a number of additional names.

Adelung, N.	(23. XI. 17)
Alferaki, C. N.	(24. VII. 18)
Bianki, V. L.	(10. I. 20)
Blecker, G. F.	(II. 19)
Bostanjoglo, V. N.	(1919)
Vakoolovsky, N. N.	(1918)
Vassiliev, E. M.	(VII. 19)
Zarodni, N. A.	(13. III. 19)
Kavargin, V. N.	(I. I. 19)
Karavaev, B. A.	(1919)
Kroolikovsky, A. K.	(X. 20)
Koordiumov, N. V.	(7. IX. 17)
Meinhard, A. A.	(24. VI. 17)
Oshanin, V. F.	(26. I. 17)
Porchinsky, J. A.	(8. V. 16)

Pylnov, E. V.	(1920.)
Rodzianko, V. N.	(1919)
Romanov, N. M.	(29. I. 19)
Selovsky, M. N.	(1921)
Semonov-Tian-Shansky, R. D.	(27. XI. 19)
Silantiev, A. A.	(21. III. 18)
Smirnov, D. A.	(17. VIII. 20)
Sonotzko, A. A.	(I. IV. 19)
Soovorov, G. L.	(29. IV. 18)
Fisher, E. N.	(1919)
Schreiner, A. E.	(VII. 18.)
Scherbakov, E. S.	(IX. 20)
Kholodkovsky, N. A.	(2. IV. 21.)
Shevyrev, I. J.	(7. VII. 10)
Jacobson, A. T.	(20. VI. 19)
Jacobson, A. A.	(12. XII. 18)

The cause of death of the majority of these Scientists is practically unknown. D. A. Smirnov, A. A. Sonotzko, A. T. Jacobson, and E. V. Pylnov died of spotted typhus fever; I. J. Shevyrev from starvation and N. A. Kholodkovsky from sarcoma cerebrosinae. Out of the total number of members of the Russian Entomological Society, fifty members perished during the period from 1916-1921. Many of the American colleagues will find in this list a number of very familiar names.

SYSTEMATIC ENTOMOLOGY

Systematic Entomology in Russia was concentrated in Universities and Museums and to a great extent also had amateurs amongst its representatives.

Little is known so far in regard to the progress of this branch of Entomology in Russia and only limited information is on hand relative to some Entomologists:

G. G. Jacobson, Specialist on Coleoptera and Termitae, author of the voluminous, but not as yet completed work, "Coleoptera of Russia and Western Europe," and a comprehensive book, "Orthoptera and Pseudoneuroptera of Russia", is at the present time Secretary of the Entomological Society at Petrograd and works as before in the Zoological Museum of the Academy of Science at Petrograd.

Among other Entomologists working in this Museum are:

A. A. Mordvilko, a well known specialist in Aphididae;

A. N. Kirichenko, specialist in Rhynchota.¹

A. A. Semenov-Tian-Shansky, specialist in Coleoptera, Hymenoptera and genus Forficula.

¹Who is continuing the work of the late V. F. Oshanin.

N. J. Kuznetsov, specialist in Lepidoptera; other Entomologists are also engaged at the Zoological Museum of the Academy of Science.

All these scientists may be addressed: c/o Zoological Museum, Academy of Science, Petrograd, Russia, Via England.

Although completely segregated from the entire scientific world during the last years, they are, nevertheless, continuing the work in these special lines insofar as the conditions of life permit to do so. There were no complaints in the letters received so far as to the hardships and deprivations, but there are constant requests to send separates, journals and books, which they are unable to secure under the present circumstances and a desire to learn whatever new has been discovered and published in the recent years by the men of science abroad.

ENTOMOLOGICAL ORGANIZATIONS

Among the new Entomological organizations opened in Russia, the following may be mentioned:

The old Bureau of Entomology of the Agricultural Scientific Committee of the Department of Agriculture, formerly in charge of the late J. A. Porchinsky, has been preserved and Dr. V. A. Pospelov is at the head of it now.

Several other Entomological Institutes were opened.

The first joint Congress of Entomologists and Phytopathologists took place in 1918, the second in October 1920, and the third was expected to be in October 1921. It was decided in the first and second Congresses to create joint Entomologo-Phytopathological Institutions, so-called "Stations of Plant Protection," associated with the Experimental Stations.

The new "Stations of Plant Protection" in Russia are as follows:

1. At Petrograd, Chief N. N. Bogdanov-Katkov; collaborators: Prof. M. N. Rimsky-Korsakov (specialist in Hymenoptera, genus *Isosoma*, *Aphanura*, genus *Embia*,) also, A. S. Skorikov (Specialist in Hymenoptera, genus *Bombus*).

Address: c/o "Station of Plant Protection" (*Stantzia Zashchity Rastenii*) Petrograd, Russia. Via England.

2. At Ivanovo-Vosnessensk
3. At Cherepovetz
4. At Tambov
5. At Omsk (chief: Mr. Antonov)
6. At Tomsk (chief: Mr. Valov)
7. At Barnaul (chief: Mr. Jurin)
8. At Semipalatinsk (chief: Mr. Hoffman); also in other cities.

All Stations of Plant Protection are united under the Central "Division for Plant Protection" at the People's Commissariat of Agriculture, so-called "Ozra, Narkomzem," which is in charge of A. P. Adrianov, (formerly Chief of the Entomological Bureau of Kaluga).

PREPARATION OF SPECIALISTS IN APPLIED ENTOMOLOGY

Two or three special courses were organized at the Universities and Agricultural Colleges of Petrograd and Moscow for training specialists in Applied Entomology. Definite information has been received in regard to such courses at the Petrovsko-Razumovskoye Agricultural Academy (near Moscow) and also at Petrograd.

The course of Entomology is being taught in three sections:

1. Forest Entomology
2. Orchard and Garden Entomology
3. Field Entomology

The lectures in these courses are given by Prof. V. F. Boldyrev, specialist in Biology of Orthoptera, who is assisted by Mr. A. P. Andrianov.¹

Applied Entomology presents perhaps the best example of what self-denying workers can accomplish along the lines of organization in spite of unfavorable living circumstances.

PUBLICATIONS

We have only a small list of Entomological publications issued during the recent years, but we know that a number of books, reports and a great many popular booklets (pamphlets) of the type of farmers' bulletins in this country have been published to answer the demand of practical needs, which the author of this report has at his disposal.²

NEW METHODS OF INSECT CONTROL

New methods of combating injurious insects presents the application of asphyxiating gases, which were left after the War. These are being used for the destruction of the Asiatic Locust (*Locusta migratoria*) in the deltas of large rivers, such as Volga, covered by thick vegetation consisting of an impassable growth of cane (*Scirpus lacustris*) and inaccessible for the ordinary spraying operations by means of a horse power pump or knapsack sprayer. In such places gases were used with great success. The same substances were used also for the destruction

¹The Medical and Veterinary Entomology is concentrated in Colleges and Universities.

²Reference of the most important editions issued during the last few years in Russia is printed in the "Review of Applied Entomology," in London.

of Locusts and at the same time Rodentia of the genus *Spermophilus*, which are abundant in the steppes of South-Eastern Russia.

New poisoned Siberian mixtures are now in use throughout all Siberia.

SUMMARY

1. The work of Entomologists in Russia is being continued in spite of the isolation of that country.

2. Many well known and celebrated Entomologists are participating in this work.

3. They are in great need of scientific Entomological literature published abroad during the years 1915-1921, that is, of books, journals, separates, etc. which they are unable to purchase under existing conditions, but for which they would send in exchange Russian publications.

4. The U. S. Post Offices accept mail for Russia, addressed via England; letters reach Russia without very much delay.

5. Mail from Russia to the the United States is not arriving satisfactorily, but somewhat better at this time.

6. The writer of this report, who represents one of the divisions of the Russian Agricultural Scientific Committee will be glad to impart any information he receives regarding Russian Entomologists upon request from his American colleagues and will also accept for forwarding to Russia any parcels with literature, if such would be found possible to spare for this purpose. It may be directed to the following address: 110 W. 40th St., Room 1603, New York City.

CHAIRMAN RUGGLES: We are all much interested in the entomological problems of Russia, but unfortunately, time will not permit us to discuss them. We now have some business to attend to. The first in order will be the nomination of the Chairman and the Secretary for the Horticultural Inspection Section for next year.

Messrs. Harned and Sasscer were nominated for Chairman and Secretary respectively, and duly elected.

CHAIRMAN RUGGLES: Is there any other business?

MR. SASSCER: I mentioned a moment ago that Mr. J. J. Davis had prepared a very complete and excellent index of the greenhouse insects. So far as I am aware, this is the only manuscript of the kind, and unfortunately, it has not been published although it has been ready for publication for several years. Apparently there is some difficulty in getting some organization to accept it. Inasmuch as we all are,

or should be, interested in greenhouse insects, and all naturally would like to have a ready reference, I move that the Resolutions Committee of the parent association be urged to incorporate in their resolutions a request suggesting that the Society of American Florists publish this paper.

The motion was seconded and carried.

CHAIRMAN RUGGLES: Is there further business?

On the committee to draw up recommendations with reference to greenhouse material, besides Mr. Sasscer, I will appoint H. F. Dietz, T. J. Headlee, Franklin Sherman, Jr., and G. M. List.

If there is no further business, we will stand adjourned.

Adjournment.

NEW EUROPEAN BEE DISEASE THREATENS BEEKEEPING IN AMERICA

Serious ravages causing almost complete destruction of the beekeeping industry in portions of Europe by the "Isle of Wight" disease has started determined action by American beekeepers to save their business from similar losses.

"Isle of Wight" disease is caused by a parasitic mite in adult bees and is easily transported by bees shipped from Europe to America as was proved during the past summer when live bees carrying living mites arrived in Washington from Scotland. Should this disease become established in America, beekeepers, queen breeders and manufacturers of bee supplies would quickly be ruined and horticultural interests would be seriously damaged.

A meeting was called at the Bee Culture Laboratory in charge of Dr. E. F. Phillips of the Bureau of Entomology at Washington, D. C., March 9, which was attended by specialists from several states and Canada who are interested in measures to prevent the introduction of the Isle of Wight disease into the United States and Canada.

Among those at the meeting were Dr. L. O. Howard and Dr. C. L. Marlatt, Chief and Assistant Chief of the U. S. Bureau of Entomology, Dr. E. F. Phillips, Government Apiarist, Prof. F. E. Millen, Apiary Inspector for Ontario, Canada; Prof. Geo. H. Rea, Pennsylvania State College; E. G. Carr, Apiary Inspector of New Jersey, J. G. Sanders, Harrisburg, Pa., President of the American Association of Economic Entomologists, Prof. N. E. Phillips, Mass. Agric. College, and Dr. H. E. Ewing, Expert on Mites, of U. S. Bureau of Entomology.