the supra-anal process at its, and their, posterior ends, and they touch it again near their tips, but for most of their length are separated from it by an air space, visible in side view. Posterior margin of the 9th sternite produced and rounded. Sub-anal lobes broad, emarginate on the outer side, their tips bluntly rounded.

Female: Resembles the male except as follows. Length of body 7.5 mm., to tip of wings 9.0 mm. Wings not abbreviated, 7.5 mm. long, dusky. Sc meets R somewhat before the cord; one or two costal crossveins present in addition to the humeral; R sinuate beyond origin of Rs; Rs and M fork once; Cu_1 and Cu_2 are unforked.

Eighth sternite with a short subgenital plate, set slightly anterior to the hind margin of the segment, notched at the tip, with a V-shaped band of dark pigment anterior to it, as indicated by dots in figure 2. Other abdominal segments unmodified.

Holotype—♂: Nettilling lake, Baffin Land, 7.vii.25; coll. J. D. Soper; in the Canadian National Collection, Ottawa.

Allotype—♀: the same, 11.vii.25, in C.N.C.

Paratypes—1 ♂ 2 ♀ ♀, 7-11.vii.25, same location as holotype; in C.N.C. 1 ♂, 10.vii.10, Tikerakdjuak (on Nettilling lake), Baffin Land; coll. B. Hantzsch, S.J.; in the Zoologisches Museum der Universitat, Berlin.

Of described American species, *C. hantzschi* is mostly closely related to *C. nearctica* Banks, which also has the tubercle on the ♂ 7th tergite, but differs in the shape of the supra-anal process. Related forms occur in northern Europe, for example *C. tenuis* Bengtsson.

The writer is indebted to Dr. J. McDunnough, Ottawa, and to Prof. Dr. H. Bischoff, Berlin, for the opportunity to study these specimens. The species is appropriately named after the explorer Bernard Hantzsch, who collected a single example during the course of his last voyage in the arctic.

NEWS AND VIEWS

QUEBEC SOCIETY FOR THE PROTECTION OF PLANTS

The thirtieth annual meeting of the Quebec Society for the Protection of Plants was held at Macdonald College, McGill University, on May 12th, 1938. The following papers were presented:—

Georges Maheux.—Introduction du *Stilpnotia salicis*.
Omer Caron.—Le nodule noir.
H. J. Miles.—Control of common scab of potato by chemical treatment of the soil.
G. Michaud and G. W. Corrivault.—La destruction de l'herbe a poux dans le district de Charlevois-Est.
G. W. Corrivault.—Resistance de *Brassica campestris*, *Brassica arvensis* et *Raphanus raphanistrum*.
J. M. Cameron.—The choice of a method for analysing experimental results.
J. T. Beaulne.—Une epidemie de mouches a scie sur le sorbier (*Pristiphora geniculata* Dhn.)
I. H. Crowell.—Some observations on apple rust.
R. Mougeot.—Le cycle evolutif du *Pieris rapae*.
R. D. Cartier.—Enquetes sur les especes de mauvaises herbes et leur distribution dans la region Temiscamingue-Abitibi.
H. A. Gilbert.—Notes on the hop vine borer, *Gortyna immanis* Gn.

In the evening an address was given by Dr. N. H. Grace, of the National Research Council, Ottawa, on Plant Hormones.

Officers elected for 1938-1939 included the following:—President, Prof.

E. Campagna; Vice-president, Mr. L. S. McLaine; and Secretary-treasurer, Dr. E. Melville DuPorte.

ARMYWORM STARTS EARLY IN SOME OF THE SOUTHERN STATES

The armyworm has appeared this spring earlier than ever before in oat and alfalfa fields in the Delta section of west central Mississippi and northeastern Louisiana, according to the U. S. Department of Agriculture. This year's outbreak started even earlier than last year's which caught many farmers unaware and proved very costly.

Other major crop insect pests continue to show every sign of having come through the winter in large numbers and of beginning their seasonal activities somewhat earlier than usual—the natural result of a generally mild winter. Some insects had destroyed crops in a few areas before the first of April. Practically all of the most destructive insect pests, however, have not yet reached the critical period in their life cycle, when weather largely determines their fate.

WAR DECLARED ON NEW CROP PEST

The White-fringed Beetle, *Naupactus leucoloma,* has been previously reported from a few scattered areas in Mississippi, Florida, Alabama, and Louisiana. As these insects are due to reappear above ground late in June in the limited areas along the Gulf Coast, the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, with the co-operation of State Organizations, has mapped out a campaign of eradication and prevention of spread of the pest. If this campaign is successful the country may well be spared the cost of another insect capable of becoming destructive to a wide variety of crops. The Federal-State campaign is under the guidance of B. M. Gaddis.

White-fringed beetles do most of their damage as larvae—half-inch long, yellowish-white, fleshy grubs, somewhat curved and sparsely covered with hair. These grubs, which live entirely underground, feed on the roots of cotton, corn, peanuts, velvet beans, sugar cane, cabbage, sweetpotatoes, and other plants. Most of the plants on which the grubs have fed wither and die very soon. Those that survive never yield good crops.

There are no male white-fringed beetles. All are females, capable of laying eggs. Hence one beetle can start an infestation.

So far as entomologists have been able to determine, the white-fringed beetle first came to the United States sometime within the last seven or eight years, probably on shipments of produce from South America.

RESEARCH NOTES

AN EFFECTIVE REPELLENT FOR BITING INSECTS

At the direction of the Dominion Entomologist the writer carried out a series of experiments during the past two seasons with a view to developing a satisfactory repellent for personal application against mosquitoes, blackflies and other blood-sucking insects. As a result of this work a new repellent has been developed which has proved very effective. Varying according to the time of day, the prevalence of biting insects, the temperature, the activity of the individual and other factors, the formula given below was found to give protection for periods varrying from three to five hours: