

between the Monophlebinae and the Margarodinae on the basis of the presence or absence of the mouth-parts in the adult female cannot be maintained.

Xylococcus betulæ Perg.

1898. *Xylococcus betulæ* Pergande, U. S. Dept. Agric., Div. Ent., Bull. 18, n. s., p. 18.

1917. *Xylococcus alni* Florence, Ann. Ent. Soc. Am., vol. 10, p. 158.

There is, I think, no question that these two species are identical. I have at hand the types of *X. alni* and specimens of *X. betulæ* as follows: from "cherry birch," Port Colborne, Ontario, Canada, adult female, intermediate stages and larva; from beech, Ithaca, N.Y., intermediate stages; from beech, Michigan, adult female, intermediate stages and larva.

The characters used by Miss Florence for the separation of *X. alni* are hardly sufficient. The differences in the anal tube of the apodous stages are not constant. The first larval stage of *alni* (in the two specimens examined) has 6-7 median ventral pores and the first stage of *betulæ* (in numerous specimens) has but 5, but in all other respects the two are identical.

Whether *X. quercus* is distinct is questionable. There appear to be certain differences in the first stage, but if these differences be allowed as of specific value it will be necessary to name another species for specimens taken from *Quercus californicus*. More material is desirable before forming any conclusions.

X. macrocarpæ Coleman is very distinct. I would separate this from *X. betulæ* by the following characters:

Adult female with the derm of the dorsum practically destitute of spines; anal tube of apodous stages with pores at the inner end only; marginal pores of first stage sessile, *X. macrocarpæ* Coleman.

Adult female of the dorsum everywhere quite thickly beset with slender spines; anal tube of apodous stages with pores both at the inner end and near the base; marginal pores of first stage borne at the inner end of short ducts.....*X. betulæ* Pergande.

Genus *Kuwania* Kll.

1903. Fernald, Cat. Coccidæ, p. 30.

1909. Cockerell, Can. Ent., vol. 41, p. 56.

Monophleboïd Coccidæ in which the adult female appears normally to lack mouth-parts but with the legs and antennæ present; tarsal claw without digitules, the tibia with numerous digitule-like hairs on the inner side at its apex; intermediate stages without legs and with the antennæ reduced to mere chitinated points, anal tube lacking. Four pairs of abdominal spiracles present in adult and penultimate stages, these on the anterior segments of the abdomen.

Type of the genus *Kuwania quercus* (Kuwana).

Notes.—I am inclined to doubt that *K. zeylanica* (Green) is congeneric with *K. quercus*. The immature stages have not been described, and it is upon these that the matter will largely depend, the adults of all of these forms being quite similar. I have at hand an adult female of *K. zeylanica* which differs from the same stage of *K. quercus* in having well-developed mouth-parts with a distinct mentum, and in having 6-8 pairs of abdominal spiracles.