

Prunus serotina (wild cherry), *Salix nigra* (black willow), *Sassafras officinale* (sassafras), *Syringa vulgaris* (lilac), and *Tilia americana* (linden).

50. *Parlatoria proteus* (Curtis) var. *pergandei* Comst., 1843 (Chaff scale). On *Citrous aurantium* (orange), and *Citrous medica* var. *limon* (lemon).

DESCRIPTIONS OF COCCIDAE HERETOFORE UNREPORTED FROM INDIANA (HOMOPTERA)¹

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1. *Pseudococcus maritimus* Ehrh., 1900 (Baker's mealy bug or the grape mealy bug). (Pl. I, Figs. 2-6).

Adult female.

Size: length 2-4 mm.; width 1.75-2 mm.

Color: Slightly covered with a whitish secretion; body, legs and antennae reddish-brown; margin with short, white filaments which become longer caudally.

Structural characteristics: Body thickly beset with long slender spines; a group of spinerets on margin of each segment in the center of which are two short stout conical spines, the caudal ones being the larger. Antennae 8-segmented and hairy; segment 8 always the longest; segments 4 and 6 subequal and shortest. Legs hairy, well developed, long and slender; a stout spine on trochanter; femur about twice as long as tibia; tarsus about one-third as long as tibia; claw short and stout; digules fine knobbed hairs. Anal lobe prominent; anal lobe spines as long as anal ring setae; anal ring large with six stout setae.

Hosts: *Euphorbia heterophylla* (poinsettia) and *Cyperus alternifolia* (umbrella plant).

2. *Aspidiotus abietis* (Schr., 1776) (Hemlock leaf scale). (Pl. I, Fig. 1).

Scale of female.

Shape: Circular; exuviae nearly central.

Size: Diameter 1.2-1.5 mm.

Color: Very dark grey, approaching black, outer edge may be lighter; exuviae yellowish orange.

Scale of male.

Shape: Length 1.5-2.1 mm., width 1.2 mm.

Color: Similar to female.

Pygidium of female: Median and second lobes well developed, rounded or slightly notched at the apex on the outer side. Third lobe small and acutely pointed. A pair of irregularly fringed plates between the median lobes; two irregularly branched plates between median and second lobe; three such plates between second and third lobes; usually

¹ Contribution from the Department of Entomology, Purdue University. These descriptions were made in the preparation of the writer's undergraduate thesis. All collections were made in the vicinity of Lafayette.

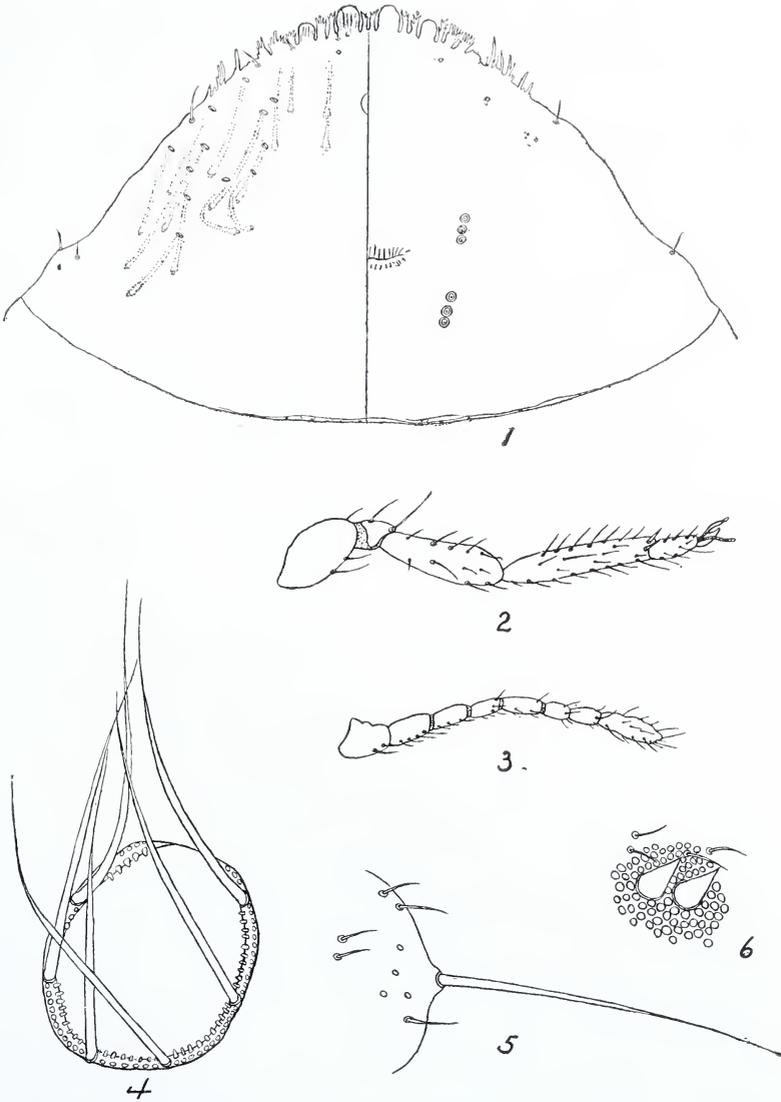


Plate I. Fig. 1—Pygidium of *Aspidiotus abietis*; 2—middle leg; 3—antenna; 4—anal ring; 5—anal lobe; and 6—spines and pores on caudal segment of *Pseudococcus maritimus*.

three plates laterad of the third lobe. Dorsal spines one laterad of each median lobe; one laterad of each second and third lobe, and one laterad of the most lateral plate. Each ventral spine with the exception of the first, which is wanting, is situated laterad of the corresponding dorsal spine. Dorsal gland openings 3-5 in the first row; 6-8 in the second row, 9-11 in the third row. Micropores as in drawing. Median group of

circumgenital gland openings wanting; anterior laterals 3-12; posterior laterals 3-5.

Host: *Tsuga canadensis* (hemlock).

3. *Aspidiotus osborni* Newell and Ckll., 1898.

Scale of female.

Shape: Subovate; exuviae submarginal.

Size: Diameter 1.2-2.1 mm., about one-seventh longer than wide.

Color: Dark, nearly color of host, somewhat similar to *C. obscurus* in general appearance. Exuviae brownish to yellowish orange.

Scale of male.

Shape: Longer and narrower than female; exuviae cephalad.

Color: Similar to female.

Pygidium of female: Median lobes strong and well developed; apex rounded, may or may not be notched on outer side; second and third lobes rudimentary. Margin laterad of plates serrate. Median incision not reaching base of lobes; second and third incisions rather deep and narrow. Of the two chitinous processes at the base of the median incision, the inner one the longest; of the chitinous processes of the second incision, the inner longer than outer; two chitinous processes of third incision equal. A pair of stout spines on the outer base of the median lobe and a pair on the rudiment of the second lobe. The spines of the ventral surface are just laterad of those on the dorsal surface, which are situated as follows: one on each of the three apparent lobes, one about one-third the distance to the penultimate segment, one near the penultimate segment. There are no ventral spines on the median lobes. Dorsal gland openings in three rows; first row 2, second row 4-6, third row 6-10. Median circumgenital gland openings wanting or 2 in number, anterior laterals 5-7; posterior laterals 2-5.

Host: *Quercus borealis* (red oak).

4. *Chionaspis platani* Cooley, 1899.

Scale of female.

Shape: Conically-ovate and slightly convex; generally narrow.

Size: Length 1.8-2 mm.

Color: Dirty white; exuviae pale yellow or brownish located cephalically.

Scale of male.

Shape: Parallel sided to oval in outline; feebly unicarinate.

Size: Length .8-.9 mm.

Color: Dirty white; exuviae yellowish-brown occupying about two-fifths of the length of the scale.

Pygidium of female: Median lobes well developed, moderately divergent and distinctly crenulate on the inner margin. Second lobe well developed with the inner lobule more distinct than the outer; the outer lobule not so broad but narrowed toward the tip; second lobe may be slightly serrate or entire. Inner lobule of third lobe well developed, outer lobule rudimentary. Large conspicuous gland spines arranged as follows: 1, 1, 1, 1, 2-4. The one near the median lobe small and often inconspicuous; others about equal to median lobes in length. Second row of dorsal gland openings consisting only of an anterior group of

3-4 openings. The third row with 4-6 openings in the anterior and 2-4 in the posterior group. Fourth row with 4-8 openings in the anterior group and 4-6 in the posterior group. Marginal gland openings 1, 1-2, 1-2, 1-2. Ventral spines smaller and laterad of corresponding dorsal spines, situated one on each side of the three lobes, one about half way to penultimate segment, and one laterad of the fifth group of gland spines. Median group of circumgenital gland openings 6-13; anterior laterals 10-28; posterior laterals 10-32.

Host: *Platanus occidentalis* (sycamore).

5. *Diaspis echinocacti cacti* Comst., 1883 (Cactus scale).

Scale of female.

Shape: Circular, exuviae nearly central.

Size: Diameter 1.7 mm.

Color: Whitish or yellow green with a contrasting exuviae of dark brown.

Scale of male.

Shape: Narrow and elongate.

Size: Length 1 mm., width .2 mm.

Color: Whitish with yellow or brown exuviae.

Pygidium of female: Median lobes small and entire, widest at middle and diverge caudad from that point. The second and third lobes are bifurcated, the lobules are subequal and parallel. A rudimentary fourth lobe is present with an entire margin but sometimes is serrate. Plates are stout and conical. The first, second, third and fourth are laterad of the first, second, third, and fourth lobes, respectively; the fourth and fifth being nearer together than the others. There is a short projection between the fifth and sixth plates. Ventral surface spines are small and dorsal surface spines are large. Ventral surface spines are situated as follows: the first pair between the median lobes, and are somewhat inconspicuous; the second and third are on the mesal part of the base of the second and third plates, respectively; the fourth is between the fifth and sixth plates, and the fifth is between the seventh and eighth gland spines. On the dorsal surface the first spine is laterad of the first lobe; the second and third on lateral lobules of the second and third lobes, respectively; the fourth mesad of the fourth plate; the fifth laterad of the sixth plate. Laterad of the first, second, and third plates, the margin of the body is prolonged into a papilla which bears an elongate pore.

Host: *Opuntia* sp. (cactus).

