

**THE ALATE VIVIPARAE OF PICTURAPHIS BLANCHARD (HOMOPTERA:
APHIDIDAE)^{1, 2}**

The aphid genus *Picturaphis* presently consists of three species. Since Smith's³ publication of his description of the apterous viviparae of *P. puertoricensis* and his key to the apterous viviparae of these three species, specimens of the alate forms of *P. puertoricensis*, not previously known, have become available. These were reared by S. Medina Gaud and Rafael Inglés on *Phaseolus adenanthus* Meyer from specimens collected June 15, 1973 in the Caribbean National Forest, El Yunque, entrance to East Peak, the type locality for *P. puertoricensis*.

The alate viviparae of *P. puertoricensis* are here described and a key is furnished to separate the alate forms of *Picturaphis*.

The wing venation of *P. brasiliensis* (Moreira) and *P. puertoricensis* is quite similar; note especially the U-shape of the radial sector (figs. 1, a, 1, b) which is more elongate in *P. vignaphila* Blanchard (fig. 1, c). The ratio of the length of the siphunculi to the cauda of *P. puertoricensis* (1.7–2.1:1), (fig. 2, B) is intermediate between *P. brasiliensis* (1.4–1.6:1), (fig. 2, A) and *P. vignaphila* (2.2–2.7:1), (fig. 2, C). The above data are based on six specimens of each species.

Genus Picturaphis

Key to alate viviparae

1. Radial sector U-shaped (fig. 1, A and 1, B).....2
Radial sector more elongate (fig. 1, C).....
.....*Picturaphis vignaphila* Blanchard
- 2(1). Siphunculi 1.4–1.6 times length of cauda.....
.....*Picturaphis brasiliensis* (Moreira)
Siphunculi 1.7–2.1 times length of cauda.....
.....*Picturaphis puertoricensis* Smith
Picturaphis puertoricensis Smith

Alate viviparae (six specimens)

Color: Living specimens reddish-brown, shiny. Cleared specimens: Head and antennae dark. Thorax dark. Legs pale except distal 1/6 of femora,

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² Contribution from the Departments of Entomology, Agricultural Experiment Station, Mayagüez Campus, University of Puerto Rico, Río Piedras, P.R. and North Carolina State University (Journal Paper No. 4161) at Raleigh, N.C.

³ Smith, Clyde F., Notes on the genus *Picturaphis* and related genera with a new species of *Picturaphis* from Puerto Rico, J. Agr. Univ. P.R. 54(4): 683–5, 1970.

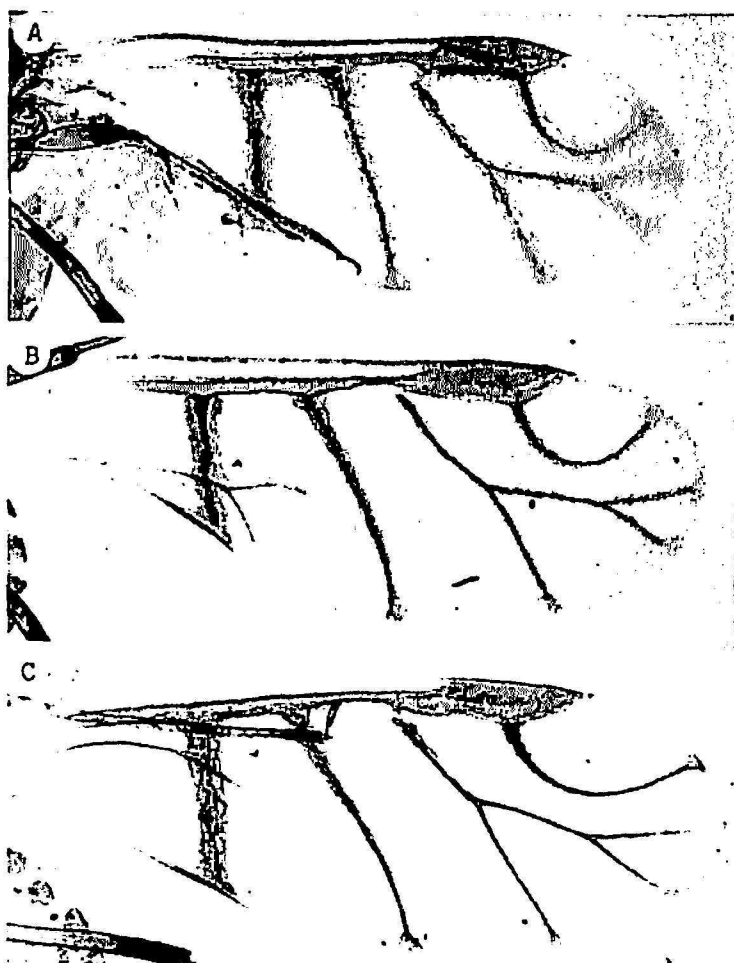


FIG. 1—Wings: 1, A *Picturaphis brasiliensis* (Moreira) (Coll. No. 69-37), on *Phaseolus lunatus* L., Arecibo-Utuado Road, Km. 77.8, March 11, 1969. (C. F. Smith, C. K. Smith, L. F. Martorell, and Silverio Medina Gaud). 1, B.—*Picturaphis puertoricensis* Smith on *Phaseolus adenanthus* Meyer, Caribbean Natural Forest, El Yunque, entrance to East Peak, June 15, 1973. (S. Medina Gaud and Rafael Inglés). 1, C.—*Picturaphis vignaphila* Blanchard on *Vigna sinensis* L., Campinas, Brazil, November 27, 1970. (C. L. Costa).

distal 1/6 of tibiae and all of tarsi which are dark. Wing veins bordered with fuscous, especially the 1st anal. Abdomen pale except for large, dark marginal sclerites surrounding small, pale tubercles. Siphunculi dark on approximately the distal 2/3, base pale. Cauda and anal plate dusky.

Body length 1.9–2.27.⁴ Antennal segment III, 0.52–0.59 bearing 4–6 secondary rhinaria; IV, 0.48–0.52; V, 0.41–0.46; VI, 0.13–0.16 plus 0.77–0.90. Ultimate rostral segment (R IV + V) 0.11. Metatibiae 1.37–1.44.



FIG. 2.—Alate viviparae: 2, A *Picturaphis brasiliensis* (Moreira) (Coll. No. 67-190), on *Phaseolus lunatus*, Florida-Jayuya, P.R., April 11, 1967. (C. F. Smith, C. K. Smith, and L. F. Martorell). 2, B. —*Picturaphis puertoricensis* Smith (same data as 1, B). 2, C. —*Picturaphis vignaphila* Blanchard on *Phaseolus vulgaris* (L.), Campinas, Brazil, November 27, 1970. (C. L. Costa).

Metatarsomere II, 0.90–0.11. Siphunculi 0.33–0.35. Cauda 0.16–0.20 and bearing 6–9 setae.

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⁴ All measurements in millimeters.