

colony once food is located. Workers can forage over 8 m from the nesting site. The species is mainly a scavenger but will also gather seeds.

### 17. *Pheidole tysoni* Forel

*P. tysoni* Forel, 1901. Soc. Ent. Belg., Ann. 45:348. - Wheeler, 1904. Amer. Mus. Nat. Hist. 20:302. - Smith, 1918. Ent. News 29:22. - Smith, 1924. Ent. News 35:78. - Dennis, 1938. Ent. Soc. Amer. 31:282, 304. - Wesson and Wesson, 1940. Amer. Midland Nat. 24:92. - Cole, 1940. Amer. Midland Nat. 24:42, 45. - Creighton, 1950. Bull. Mus. Comp. Zool. 104:191. - Smith, 1951. Cat. Hym. Amer. No. of Mex., U.S.D.A. Mon. 2:805. - Gregg, 1958. N.Y. Ent. Soc. 66:32.

*Type locality.* Mt. Mitchell, North Carolina

*Types.* A.M.N.H., M.C.Z.

*Range.* North Florida, Georgia, western North Carolina, southwestern Virginia and eastern Tennessee.

*P. tysoni* is a small yellowish species closely related to *P. vinelandica*, differing from it by the teeth on the anterior ventral margin of head. The minor has the propodeal pleurae largely free from sculpture and strongly shining.

#### Discussion

*P. tysoni* was collected once in a soybean field at Tall Timbers Research Station in 1973. The colony was quite large and the main chamber was about 50 cm deep in the ground. Only minors were foraging. This is the only record known for the state and I am assuming that *P. tysoni* is rare in Florida.

### 18. *Pheidole vinelandica* Forel

*P. bicarinata* race *vinelandica* Forel, 1886. Ann. Soc. Ent. Belg. 30:45.

*P. vinelandica* Mayr, 1886. Verh. Zool.-Bot. Ges. Wien 36:458. - Emery, 1895. Zool. Jahrb. Syst. 8:292. - Forel, 1901. Ann. Soc. Ent. Belg. 45:348. - Wheeler, 1904. Amer. Mus. Nat. Hist., Bul. 24:458. - Smith, 1918. Ent. News 29:22. - Davis and Bequaert, 1922. Brook. Ent. Soc. 17:9. - Smith, 1924. Ent. News, 35:54. - Hayer, 1925. Ent. News 36:42. - Cole, 1940. Amer. Midland Nat. 24:42. - Wesson and Wesson, 1940. Amer. Midland Nat. 24:92-93.

*P. (Allophidole) vinelandica* Forel, 1912 - Mem. Soc. Ent. Belg. 19:237.

*P. vinelandica laeviuscula* Emery, 1895. Zool. Jahrb. Syst. 8:292. - Smith, 1951. Cat. Hym. Amer. No. of Mex. U.S.D.A. Mon. 2:805.

*P. vinelandica* subsp. *buccalis* Wheeler, 1908. Bull. Amer. Mus. Nat. Hist. 24:454. - Smith, 1951. Cat. Hym. Amer. No. of Mex. U.S.D.A. Mon. 2:805.

*P. vinelandica longula* var. *castanea*. Wheeler, 1915. Amer. Mus. Nat. Hist. 34:405. - Cole, 1937. Ent. News 48:100.

*P. bicarinata buccalis* Creighton, 1950. Bull. Mus. Comp. Zool. 104:171. - Cole, 1953. Tenn. Ac. Sc. 28:297.

*P. bicarinata vinelandica* Creighton, 1950. Bull. Mus. Comp. Zool. 104:17a. - Cole, 1956. Tenn. Acad. Sc. 31:114. - Gregg, 1958. N.Y. Ent. Soc. 66:18, 36. - Reid and Nugara, 1961. Jour. Parasitology 47:885-889. - Smith, 1965. U.S.

Dept. Agr., Tech. Bul. 1326:25-26.

*P. vinelandica vinelandica*. Smith, 1951. Cat. Hym. Amer. No. of Mex. U.S.D.A. Mon. 2:806.

*Type locality.* Vineland, New Jersey

*Types.* Cotypes, A.M.N.H.

*Range.* Southeastern and Gulf States and along the east coast to New Jersey.

*P. vinelandica* is a small yellowish species differing from *P. bicarinata* by having the basal face of propodeum in the major largely punctate (fig. 60) and having a longitudinal striation on the frontal area (fig. 63). It differs from *P. tysoni* by the absence of teeth on the anterior ventral margin of the head.

#### Discussion

I had the opportunity to study specimens of *P. vinelandica* from New Jersey, North Carolina, South Carolina, Georgia, Alabama, and Texas. I have also collected this species at Tall Timbers Research Station as well as in Putnam Co., Florida. I have compared these with specimens of *P. bicarinata* (fig. 24, 61, 62) from Illinois in the M.C.Z. I also have studied specimens of *bicarinata* collected at Colorado Springs, Colorado; Ames and Lewis, Iowa; Devils Tower, Wyoming; Ortonville, Minnesota, and Corinne, Utah. It was evident that the two forms are not conspecific and have constant morphological differences, emphasizing that *P. vinelandica* deserves full species rank. Gregg (1958) included the var. *nebrascensis* Forel and the var. *huachucana* Smith as synonymus of *vinelandica*. I have not studied the types of these taxa but am doubtful about their inclusion under *vinelandica* rather than *bicarinata*. Records of *vinelandica* from North Dakota and Colorado also seem doubtful, and seem much more likely to be misdetermined records of *bicarinata*.

*P. vinelandica* is found nesting in grassy areas at Tall Timbers Research Station. The minors and majors are easily seen foraging close to the nesting site. The nest has several exits. They were observed carrying seeds and small dead arthropods.

### SPECIES NOT PROPERLY INCLUDED IN THE FLORIDA PHEIDOLE FAUNA

#### 19. *Pheidole pilifera* (Roger)

*Leptothorax pilifera* Roger, 1863. Berl. Ent. Zeitschr., 7:180.

*P. pilifera* var. *simulans* Wheeler, 1908. Bull. Amer. Mus. Nat. Hist., 24:436.

*P. pilifera* subsp. *septentrionalis* Wheeler, 1908. Bull. Amer. Mus. Nat. Hist. 24:436.

*P. pennsylvanica* Roger, 1863. Berl. Ent. Zeitschr., 7:199. - Mayr, 1870. Verh. Zool.-Bot. Ges. Wien, 20:981. - Mayr, 1886. Verh. Zool.-Bot. Ges. Wien, 36:455. - Mayr, 1877. Verh. Zool.-Bot. Ges. Wien, 37:588.

*P. pilifera* Emery, 1895. Zool. Jahrb. Syst. 8:290. - Creighton, 1950. Bull. Mus. Comp. Zool. 104:184-186. - Van Pelt, 1956. Amer. Midland Nat. 56:377, 834. - Smith, 1958. Cat. Hym. Amer. No. of Mex., U.S.D.A. Mon. 2 (Suppl. 1):123. - Gregg, 1958. N.Y. Ent. Soc., 66:24-25.

*Type locality.* Pennsylvania