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of
WASHINGTON

Volume 84

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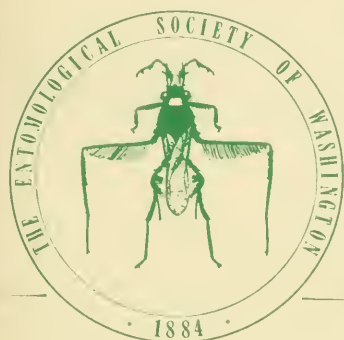
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MEMBERSHIP.—Members shall be persons who have demonstrated interest in the science of entomology. Annual dues for members are \$10.00 (U.S. currency) of which \$9.00 is for a subscription to the *Proceedings of the Entomological Society of Washington* for one year.

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AN OLD WORLD SPECIES OF *SCYMNUS (PULLUS)*
ESTABLISHED IN PENNSYLVANIA AND NEW YORK
(COLEOPTERA: COCCINELLIDAE)

ROBERT D. GORDON

Systematic Entomology Laboratory, IIBIII, Agricultural Research Service, USDA, % National Museum of Natural History, Washington, D.C. 20560.

Abstract.—A European species of Coccinellidae, *Scymnus (Pullus) suturalis* Thunberg, is reported for the first time from North America. All collection localities are in Pennsylvania and New York. The known distribution, possible origins of the introduction, and taxonomic affinities of *S. suturalis* are discussed.

In a taxonomic treatment of certain genera of North American Scymnini (Gordon, 1976), I discussed *Scymnus (Pullus) coniferarum* Crotch. The distribution of this species is primarily Californian with outlying records from British Columbia, South Dakota, and Colorado (Fig. 1) (this map is reproduced as published in 1976). I also included in the treatment of this species data from specimens taken from several Pennsylvania localities with the speculation that they had been artificially distributed on nursery stock. Subsequent investigation has revealed that all of the Pennsylvania specimens are *Scymnus (Pullus) suturalis* Thunberg, a species not previously recorded from North America. A single New York record (1981) was received from A. G. Wheeler. Korschefsky (1931) gives the distribution of *S. suturalis* as "Europa, Caucasus, Sibirien, Tunis." *Scymnus suturalis* and *S. coniferarum* are extremely similar in appearance, with the primary diagnostic difference being the shape of the infundibulum in the female genitalia. This and other differences are discussed below.

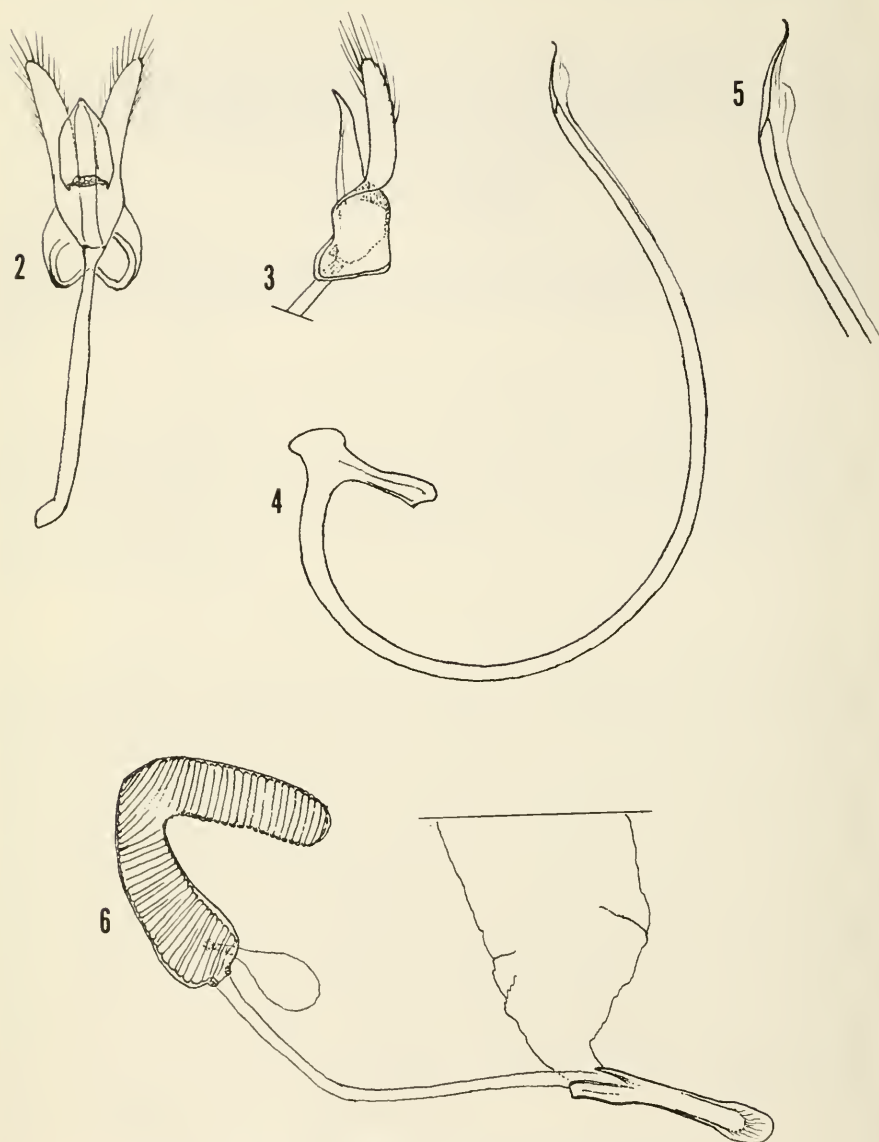
Scymnus (Pullus) suturalis Thunberg

Scymnus (Pullus) suturalis Thunberg, 1975: 106.

Description as for *Scymnus (Pullus) coniferarum* except: Body slightly broader, less elongate in appearance; punctures on elytron coarse, dense, separated by the diameter of a puncture or less; basal lobe of male genitalia broad in ventral view, abruptly narrowed in apical $\frac{1}{4}$ (Fig. 2), apex in lateral



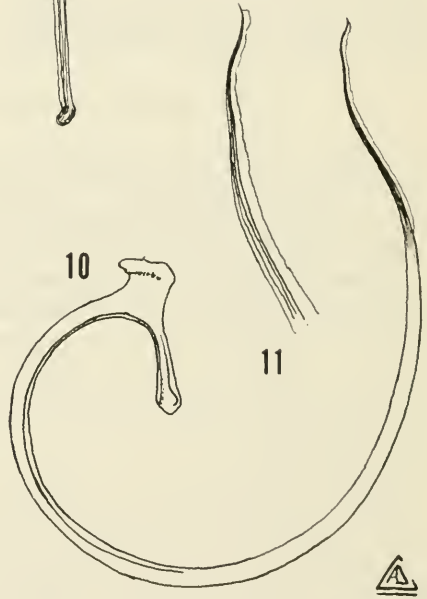
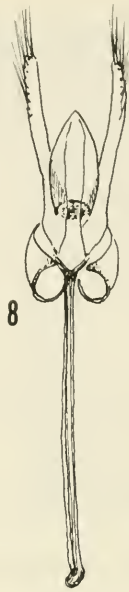
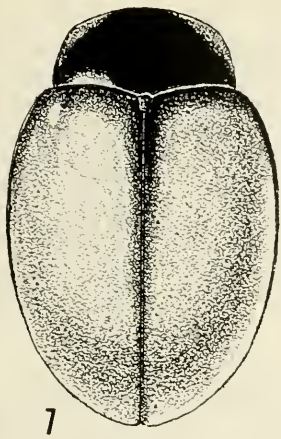
Fig. 1. Distribution of *Scymnus conferratus* in western North America and *S. suturalis* in Pennsylvania (1976).



Figs. 2-6. *Scymnus suturalis*. 2-5, Male genitalia. 6, Female genitalia.

view distinctly bent downward (Fig. 3), apex of siphos S-shaped (Figs. 4, 5); female genitalia with infundibulum slender, rodlike (Fig. 6).

Scymnus coniferarum differs from *Scymnus suturalis* in being extremely elongate (Fig. 7), with elytral punctures small and separated by about twice



Figs. 7-12. *Scymnus coniferarum*. 7, Habitus view. 8-11, Male genitalia. 12, Female genitalia.

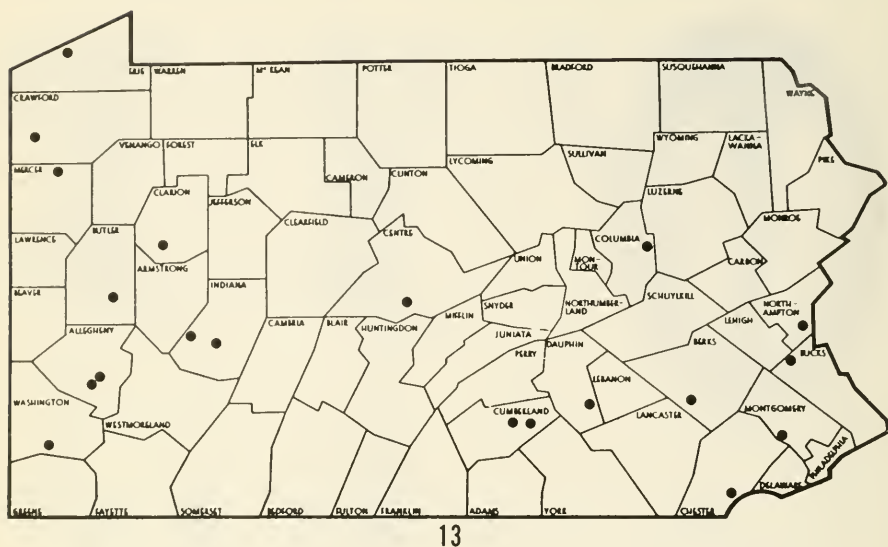


Fig. 13. Known distribution of *Scymnus suturalis* in Pennsylvania (1981).

the diameter of a puncture; the male genitalia are different as in Figs. 8–11, and the female infundibulum is short and thickened at both ends (Fig. 12).

The known distribution of *S. suturalis* in Pennsylvania is depicted in Fig. 13. However, it also occurs in New York, and it is not likely that the species is restricted to those states. All specimens were received from A. G. Wheeler and T. J. Henry of the Pennsylvania Department of Agriculture and were taken mostly on pine (*Pinus sylvestris*, *P. strobus*, *P. resinosa*). One record was from spruce (*Picea pungens*). Nearly all records were from trees used as ornamentals such as ornamental plantings, nursery stock, or Christmas tree plantations.

Both *S. suturalis* and *S. coniferarum* are aphid predators and apparently feed mainly or entirely on aphids infesting conifers. Gordon (1976) recorded *S. coniferarum* on lodgepole pine and Monterey pine infested with woolly aphids. I have no specific predation records for *S. suturalis*, but its food preference is apparently very similar to that of *S. coniferarum*.

Because the shipment of two- and three-needled pines into this country has been prohibited by quarantine laws since 1915 (Wheeler and Henry, 1973), *S. suturalis* was probably established prior to that year. Before 1915 (prior to current quarantine laws), vast amounts of live nursery stock were imported from Europe and distributed throughout Pennsylvania and elsewhere (personal communication, A. G. Wheeler). Under those conditions *S. suturalis* had many opportunities to become established.

Collection localities for *S. suturalis*.—PENNSYLVANIA: (20 specimens examined) (Allegheny Co.) Cheswick, Pittsburgh; (Berks Co.) Shillington; (Bucks Co.) Coopersburg; (Butler Co.) Herman; (Centre Co.) State College; (Chester Co.) Longwood Gardens; (Clarion Co.) Rimersburg; (Columbia Co.) Berwick Cemetery; (Crawford Co.) Conneaut Lake; (Cumberland Co.) Camp Hill, Hagestown; (Dauphin Co.) Hershey; (Erie Co.) Fair View; (Indiana Co.) Indiana, Shelocta; (Mercer Co.) Sheakleyville; (Montgomery Co.) Norristown; (Northampton Co.) Easton; (Washington Co.) Marianna, Squirrel Hill Nursery. NEW YORK: (2 specimens examined) (Tompkins Co.) Ithaca.

ACKNOWLEDGMENTS

I thank A. G. Wheeler, Jr., Pennsylvania Department of Agriculture, Harrisburg, and T. J. Henry, now with the Systematic Entomology Laboratory, USDA, Washington, D.C., for help in locating specimens and discussing the probable reasons for the establishment of *suturalis* in Pennsylvania and New York.

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