

## NEW COUNTRY RECORDS FOR MOSQUITO SPECIES IN GREECE<sup>1</sup>

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**ABSTRACT.** A study of the literature and mosquito collections in Greece has yielded 3 species that have not been recorded from Greece. They are *Aedes annulipes*, *Aedes berlandi*, and *Culex pusillus*. Notes on their recognition and geographic distribution are also given.

An intensive review of the literature related to the mosquitoes of Europe in general and of Greece in particular, as well as the study of collections in the country, has yielded new records. We owe gratitude to A. M. Papadakis, J. Hadjinicolaou, and R. C. Shannon, scientists working in Greece during the decade of the 1930s who left behind specimens, which they had captured, in the collections of the Athens School of Public Health and the National Museum of Natural History, Smithsonian Institution. Among them were many voucher specimens of species already known in Greece, but also 3 proved to be new country records.

Cardamatis (1931) was the first to report mosquito species from all of Greece. Several earlier records had been published about species from Macedonia in northern Greece (e.g., Joyeux 1918; Waterston 1918, 1922). The most complete list from the entire country contains 38 species (Pandazis 1932, 1935). Senevet and Andarelli (1955, 1959) recorded 28 Hellenic species. A more recent list, produced by Sakellariou and Lane (1977), is composed of 38 species but only from Copais District and 8 species in their list do not bear currently accepted nomenclature (e.g., *Anopheles italicus* Rafaele for *Anopheles cinereus hispaniola* [Theobald]). We are reporting 3 additional species from Greece for the first time. The names in small caps below indicate provinces in Greece.

### *Aedes (Ochlerotatus) annulipes* (Meigen)

THRACE, Nestos River, near Chrysoupolis, June 20, 1992, 5 females, *ex stable* (A. Samanidou).

This species is characterized by the presence of broad basal pale-scaled bands on the hindtarsi,

dark and pale scales on the wings, and generally scales of yellowish color on the thorax and abdomen (Edwards 1921, Gutsevich et al. 1971). Greece may represent the southernmost limits of its range in Europe (Gutsevich et al. 1971).

### *Aedes (Ochlerotatus) berlandi* Seguy

MACEDONIA, Struma Valley, July 1934, 1 female (R. C. Shannon).

This female is in good condition although a bit dusty. The principal character for identifying *Ae. berlandi* is that tarsomere 5 on all legs is entirely pale scaled. In our specimen only the left fore- and hindlegs are complete and both have a well defined pale tarsomere 5. We believe with this evidence that all legs have this type of tarsomere 5. The hindtarsomeres have broad apical and basal bands spanning the joints 1-2, 2-3, and 3-4. The scutum is largely covered with golden scales. Dark scales are present on the scutal fossae and posteriorly near the antescutellar space. There is a pale-scaled lateral line and the antescutellar space is surrounded by pale scales. Its abdominal terga have broad basal pale bands, width about 0.3 length of segment. In older literature this species was called *Aedes longitubus* Cambournac (e.g., Clavero 1946, Aitken 1954). It was synonymized under *Ae. berlandi* by Rioux and Arnold (1955).

### *Culex (Barraudius) pusillus* Macquart

MACEDONIA, Struma Valley, August 1935, 1 female (R. C. Shannon and J. Hadjinicolaou).

The subgenus *Barraudius*, to which *Cx. pusillus* belongs, is characterized by having the proboscis shorter than the forefemur and the hindtarsomere 1 distinctly shorter than the hindtibia. *Culex pusillus* is distinguished from the only other member of the subgenus in Greece, *Culex modestus* Ficalbi, by the presence of separated basolateral pale-scaled spots on the abdominal terga, rather than a lateral longitudinal stripe of pale scales along the length of the abdomen as in *Cx. modestus* (Senevet and Andarelli 1959). This species is distributed mainly to the south and east of Greece in the Middle East and North Africa (Knight and Stone 1977), therefore, this

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Greek specimen may represent its northernmost record.

Specimens of these new records are deposited in the mosquito collections of the Athens School of Public Health, Athens, Greece.

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