

le. . . . Types are not cited for all included generic names, but a considerable number are involved. For example, in the order Diptera, type species are cited for 22 genera by Blanchard (1845) and for 27 genera by Desmarest (1859).

In the dipterous genera, there is fortunately little to disturb existing nomenclature, and it is to be hoped that this will also be true for other groups. Because many of the genera were common and well known, their types had usually been designated earlier by Latreille, Curtis, or Westwood, and almost always the same species was cited by Blanchard or Desmarest, or else the genera were monobasic. In two cases in Desmarest, the designations long antedate those presently accepted, but they are invalid because the species were not originally included. In two other instances, however, valid type designations in Desmarest antedate by fifty years those now recognized. The most prominent genus involved is *Cuterebra*, whose type was designated by Desmarest as "*C. cuniculi* Fabr." (= *Ocstrus cuniculi* Clark), luckily the same species designated by Coquillett in 1910, a half century later. A possibly troublesome problem in another family is being studied further.

**NOTES ON THE ANYSTIDAE WITH A DESCRIPTION OF A NEW GENUS
AND SPECIES, ADAMYSTIS DONNAE, AND A NEW SUBFAMILY,
ADAMYSTINAE (ACARINA)¹**

By FREDERICK CUNLIFFE, *Kansas Wesleyan University, Salina, Kansas*

The family Anystidae has been characterized as having a palpal thumb-claw complex, chelicerae hinged posteriorly so that they are free to move laterally, and movable chelae hooked, distal, and not opposed to the fixed chelae. The long, prominent palpal thumb or tarsus and the hooklike distal movable chela have been used as key characters to distinguish the Anystidae from the other members of the Anystoidea (Teneriffiidae, Pseudocheylidae, and Pterygosomidae). Also, such characters as the setation of the legs and the body, the coxal arrangements, and the structure of the tarsi and tarsal claws and pulvilli, the peritremes, and genitalia differentiate the Anystidae from the others. Baker and Wharton (1952) state that no genital discs are present, but examination by the phase microscope revealed two pairs of discs in both sexes.

Two undescribed species of mites have been found which apparently belong to the Anystidae. They constitute a new genus, the *Adamystis*. This genus is differentiated from all others in having a simple palpus without the thumb-claw complex. The body and leg setal patterns are also more simplified. Perhaps the genus may eventually form the basis for another family, but until more groups are found and studied it is thought best to leave it in the Anystidae, but in a separate subfamily. Oudemans (1936) divided the Anystidae into two subfamilies,

¹A contribution of the Pinellas Biological Laboratory, Inc.

the Anystinae with the coxae contiguous and the legs radiating, and the Erythracarinae with coxae I-II and III-IV in separate groups and with the first two pairs of legs pointing anteriorly and the last two pairs pointing posteriorly. The palps of both subfamilies have a thumb-claw complex. This new genus is here considered to constitute a new subfamily, the Adamystinae, distinguished from the others in having simple palpi without the thumb-claw complex and in having contiguous coxae and an elongate body. The simplified palpal arrangement (fig. 3) is not a sudden transition from a strong thumb-claw complex as found in the genus *Bechsteinia* (fig. 9), as a weak but definite one is to be found in the genera *Anystis* and *Walzia* (fig. 8). It might be appropriate here to mention that much work remains to be done at the generic and specific levels in the Anystidae. Descriptions are vague and synonyms appear to be inevitable.

ADAMYSTINAE, new subfamily

With the tarsal claws, empodia, chelicerae, peritremes, and genitalia of the Anystidae. With simple palpi, contiguous coxae and radiating legs, and elongate body. Dorsum of body entirely covered by smooth shield; striae found only laterally and ventrally.

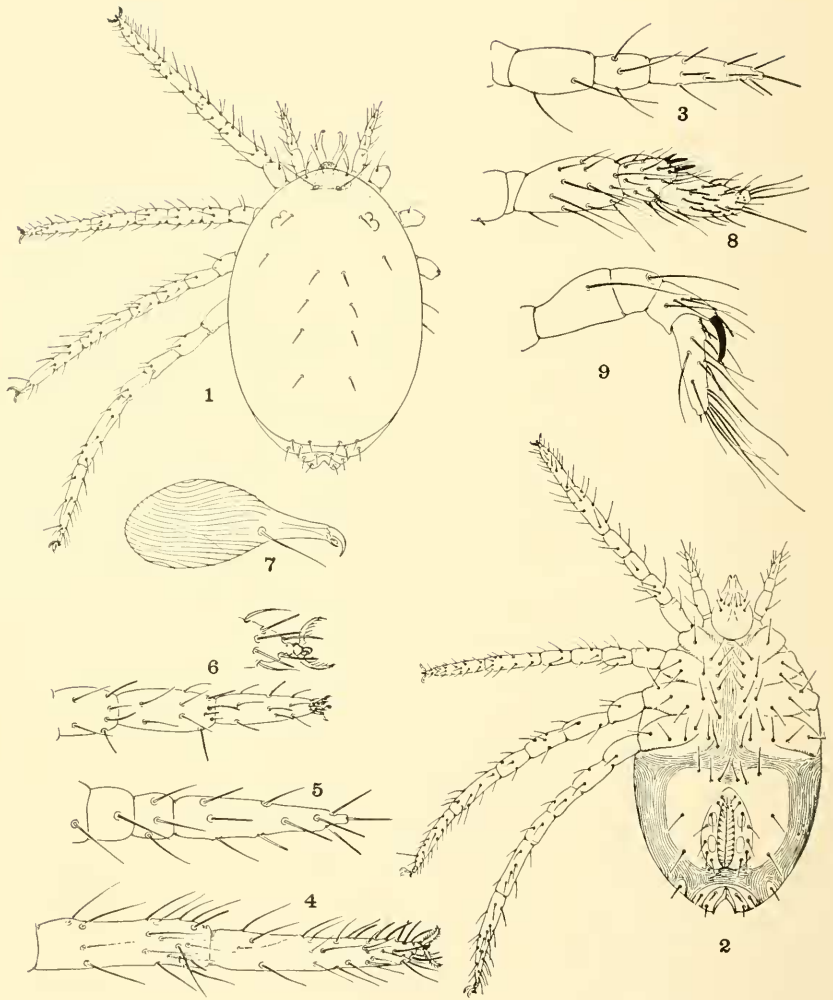
ADAMYSTIIS, new genus

Palpus without thumb-claw complex, the tarsus terminal to tibia, thus differing from all other genera in the family. Chelicerae with single dorsal seta, movable chela distal, hook-like. Peritreme external, but lying under anterior fold of body. Dorsum of body with two pairs of eyes; entire dorsum covered by a smooth shield, with short setae. Genital opening posterior, lying in a genital plate or non-striated area, surrounded by striae. Coxae contiguous, legs radiating, body elongate.

Adamystis donnae, new species

Palpus 4-segmented, the basal segment without setae, the others as figured (fig. 3). Chelicerae typical for the family (fig. 7). Peritremes and anterior lobe lying beneath fold of body. Dorsum of body entirely covered by smooth shield with short stout setae (fig. 1); with 2 pairs of eyes present anteriorly and dorsally. Ventrally, the genital opening lies in a smooth plate surrounded by fine striations; the number of genital setae appears to vary between 12 and 14 pairs between individuals and sexes; the para-anals vary between 7 and 8 pairs. The ventral body and leg setae are arranged as figured (fig. 2). The coxae are contiguous; tarsal claws are rayed and the empodium claw-like; leg setae are fewer and weaker than in the known genera, and rodlike sensory setae are numerous on both tarsus I and II (figs. 4 and 6). The male holotype (figured) is 574μ long and 319μ wide. The female is 700μ long and 434μ wide. Both sexes are similar.

The holotype, U. S. National Museum No. 2326, and 13 paratypes (3 males and 10 females) are deposited in the U. S. National Museum. They were collected from lodgepole pine cones, Tahoe City, California, July 23, 1948, by E. Cott and S. F. Bailey, of the University of California at Davis.



Adamystis donnac, new species.—Fig. 1, dorsum of male; fig. 2, venter of male; fig. 3, palpus; fig. 4, tarsus and tibia I; *Adamystis* sp.—Fig. 5, palpus; fig. 6, tarsus and tibia I; detail of tarsus I; fig. 7, chelicera; *Walzia* sp.—Fig. 8, palpus; *Bechsteinia* sp.—Fig. 9, palpus.

A single specimen of a related mite was collected at Duke University from pine needle duff June 22, 1953, by Andrew Spielman, now with the U. S. Navy. The condition of the mount is such that detailed description and figures are difficult to give. The mite is similar to the California species, differing principally in having a seta on the basal segment of the palpus (fig. 5) and in possessing lens-like organs on the lateral and posterior margins of the body—6 pairs surround the anal opening. No name is given to this species but it is mentioned here to strengthen the erection of the new genus.

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A NEW GARGAPHIA FROM FLORIDA

(HEMIPTERA: TINGIDAE)

ROLAND F. HUSSEY, *Biology Department, University of Florida, Gainesville*

Through the courtesy of Mr. Harold A. Denmark, of the Department of Entomology, State Plant Board of Florida, I have been privileged to examine some collections of Hemiptera from various parts of the state. Among these were two specimens of the new species described here. The locality from which they come is in northwestern Florida, less than a mile from the southwestern corner of the State of Georgia.

Gargaphia sororia, new species

Length 4.05 mm., maximum width across hemelytra 1.76 mm., across discoidal area 1.66 mm., across paranota 1.17 mm.

Cephalic spines nearly as in *G. amorphae* (Walsh), basal spines more nearly horizontal and very slightly longer than the median one, median spine oblique, not surpassing tips of the rather short frontal spines which are contiguous at tips and do not reach middle of first antennal segment. Lengths of antennal segments I-IV = 31:14:163:45, first two segments heavily infuscated, nearly black, third segment brown, fourth segment black, first segment one-fourth longer than vertical height of an eye (31:25),¹ third segment much longer than transverse width of pronotum across paranota (163:117). Hood about as long as its height above dorsal margin of eye (31:33).

Paranota more nearly vertical than in *G. amorphae* but formed much as in that species, rather evenly rounded at sides, with four rows of cells at widest part, the veinlets mostly brown or brownish piceous, cells hyaline. Median carina of pronotum scarcely higher than lateral carinae, these not extending forward quite as far as posterior end of hood.

¹All comparative measurements are expressed in hundredths of a millimeter.