

photographed. In order to reduce detachment of larvae to a minimum, the camera is first set up nearby and focussed on a card lying on the ground. When the light has been measured and all adjustments made, the plaque is removed from the stream, placed on the card, photographed, and returned to its former position in a matter of seconds. If care is taken to return it to the exact spot and position it formerly occupied, disturbance of the larvae is minimal. The resulting negatives may be processed when convenient, enlarged to any suitable degree, and the attached larvae may be counted in the laboratory with great accuracy.

After the application of the larvicide, the process may be repeated at any desired interval for the assessment of results.

### References

(1) WOLFE, L. S. and PETERSON, D. G. 1958. A new method to estimate levels of infestations of blackfly larvae. (Diptera:Simuliidae) Can. J. Zool. 36:863-867.

### *Aedes atlanticus* DYAR AND KNAB, FEEDING ON TURTLES<sup>1</sup>

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The acceptance of reptilian hosts by *Aedes* mosquitoes has been of interest to many investigators. Reptiles have been suggested as possible overwintering hosts of arboviruses and limited reptilian feeding in nature has been suggested by bait trap studies. Several observations involving *Aedes canadensis* (Theobald) feeding on turtles are found in the literature, but reptilian acceptance under natural conditions is not clear for most other species. During recent investigations in southern New Jersey, *Aedes atlanticus* Dyar and Knab was observed feeding on turtles.

*Aedes atlanticus* has been reported from New Jersey (Headlee, 1945) but is only rarely encountered. Larvae have only been found in woodland pools late in the season following summer rains and light trap catches have been minimal. Relatively little, therefore, is known of its habits in the state. The species is common in the southeastern United States where the adult females are cryptic with those of *Aedes tormentor* Dyar and Knab. The females have been described by Carpenter and LaCasse (1955) as persistent human biters, while Michener (1947) and King *et al.* (1960) stated that they bit severely in daylight hours, often in open sunlight.

<sup>1</sup> Paper of the Journal Series, New Jersey Agricultural Experiment Station, Rutgers-The State University, Department of Entomology & Economic Zoology.

Recent observations in southern New Jersey indicated that *Aedes atlanticus* will accept reptilian hosts. Following heavy rains late in August, numerous turtles basking in rain pools were observed being attacked by mosquitoes. In all cases *Aedes canadensis* was the major species encountered but on three separate occasions, *Aedes atlanticus* was also included. On August 25, 1967, 3 specimens were taken from an eastern box turtle, *Terrapene carolina carolina* along with 187 *Aedes canadensis*. Three additional specimens were included with 79 *Aedes canadensis* taken from a spotted turtle, *Clemmys guttata* on the same day. Four days later, a single *Aedes atlanticus* was collected from a box turtle with 126 *Aedes canadensis*.

One of the seven *Aedes atlanticus* collected was fully distended with blood. The specimen was included in the serological testing program currently being conducted on the feeding habits of New Jersey mosquitoes. Tests indicated that the specimen had taken its blood-meal from a turtle host. *Aedes atlanticus*, therefore, was shown to be not only attracted to turtles in these observations, but capable of taking a full blood-meal as well.

### References Cited

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KING, W. V., BRADLEY, G. H., SMITH, C. N., and McDUFFIE, W. C. 1960. A handbook of the mosquitoes of the southeastern United States. USDA Publ. Ag. Handbook #173.

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### OCCURRENCE OF *Aedes infirmatus* D. & K. IN ARIZONA

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A single male *Aedes infirmatus* was collected in a New Jersey light trap at Fort Huachuca, Arizona by James O. King on the night of August 31, 1966. This was a cool night during which only one other specimen was taken (*Culex tarsalis* male).

It is believed that this species has not been reported previously from Arizona, and is a new state record. Dr. Alan Stone states that it has been found previously as far west as El Paso, Texas. The male terminalia slide has been placed in the collection of the National Museum.

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