

A note on *Kohlsia graphis erana* from Costa Rica*

by

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(Received for publication January 13, 1964.)

During a survey of ectoparasites of birds and mammals of Costa Rica, conducted by the International Center for Medical Research and Training, two males and two females of the flea *Kohlsia graphis* (Rothschild) were collected from two Tropical Red Squirrels, *Sciurus granatensis*. One squirrel was collected at Monte Verde (alt. 5,000 feet) on the Río Guacimal, in the Province of Puntarenas, and the other came from Volcán Poás (alt. 8,400 feet) in the Province of Alajuela. TRAUB (1950, Fieldiana: Zool. Mem. 1) lists this parasites as being taken from *Sciurus deppiei* at an unspecified locality in Nicaragua. Two subspecies are listed, *K. g. graphis* (Rothschild) and *K. g. erana* Traub. The latter was taken from *Peromyscus* sp. in El Salvador. The specimens recently collected in Costa Rica fit the species description given by Traub. However, they do not agree with the descriptions of either of the two subspecies. But of the two descriptions, the specimens are closer to *K. g. graphis*. The measurements that Traub gives for the tibia and tarsal segments of *K. g. erana* are smaller than our measurements (in microns), which are as follows:

Leg:	Tibia	Tarsal segments				
		1	2	3	4	5
Pro	239	96	96	82	62	148
Meso-	357	184	159	104	62	139
Meta	490	358	266	164	85	168

* This work was supported in part by Public Health Service grants 2E7 and Gar 11330-03.

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The bristles on the posterior abdominal segments differ somewhat in number and position. This difference is probably attributable to the small number of specimens used by Traub when he described *erana*.

E. Méndez of the Gorgas Memorial Laboratory in Panamá stated in a recent personal communication to us that he has collected this flea from *S. granatensis* near Cerro Punta, Chiriquí Province, Panamá. This locality is near the Costa Rican border. Méndez also states that his specimens differ slightly from the description given by Traub. Méndez enclosed Plate 33 of a monograph on the fleas of Panamá, which is in preparation. The figures closely resemble the specimens collected by us.

The Costa Rican records provide a link between the parasites described by Traub and those collected in Panamá by Méndez. Two of the Costa Rican specimens are in the collection of Dr. Rodrigo Zeledón, Department of Parasitology, School of Microbiology, University of Costa Rica, and the other two have been given to E. Méndez, who verified the specimens.