

THE "MUSEO DE ENTOMOLOGIA Y BIODIVERSIDAD
TROPICAL" OF THE AGRICULTURAL EXPERIMENT STATION,
UNIVERSITY OF PUERTO RICO

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HISTORY OF THE COLLECTION

The collection of the Museo de Entomología y Biodiversidad Tropical (formerly the Entomology Museum) at the Agricultural Experiment Station (AES) of the University of Puerto Rico is the largest depository of insects in Puerto Rico (Santiago-Blay *et al.* in prep.). The collection harbors more than 200,000 specimens, mostly from Puerto Rico, in its main collection at Río Piedras (not to be confused with the Río Piedras Campus of the University of Puerto Rico that also houses significant biological collections) and some additional holdings in the Isabela (approximately 5,000 insects of agricultural importance and 1,200 identified Acari).

The collection was started in 1910 by D. L. Van Dine, W. V. Tower, E. G. Smyth, C. E. Hood, and G. N. Wolcott, all entomologists working with sugarcane in Puerto Rico (Cook and Otero 1937). Following the successful control of insect pests in major commodities in the continental United States, great emphasis was placed in solving practical agricultural problems caused by insects, such as sugarcane white grubs, *Diaprepes abbreviatus* (L.) (Coleoptera: Curculionidae), and *Phyllophaga* spp. (Coleoptera: Scarabeidae), in the Island. Some examples of biological control that influenced research activities in Puerto Rican agricultural entomology were: 1) the cottony cushion scale (*Icerya purchasi* Mask., Homoptera: Margarodidae) in California oranges controlled by *Rhodolia cardinalis* Mulsant (Coleoptera: Coccinellidae) and *Cryptochaetum iceryae* Williston (Diptera: Cryptochaetidae) in the late 1880s, and 2) the sugarcane leafhopper (*Perkinsiella saccharicida* Kirkaldy, Homoptera: Cicadellidae) in Hawaii controlled by several parasites, of which *Paranagrus optabilis* Perkins (Hymenoptera: Mymaridae) was perhaps the most important (Perkins and Kirkaldy 1907). These are interesting cases in the history and interactions between science, agribusiness, government, and the general public in Puerto Rico.

Since 1910, the main collection has been housed in several locations within the Biology Building at the AES in Río Piedras, expanded, and kept as a research tool. One of the unique aspects of this collection is the detailed accession number catalog that cross-references about 85% of the pinned specimens with additional biological data. The efforts of dedicated researchers, such as George N. Wolcott, Luis F. Martorell, José García Tudurí, Silverio Medina Gaud, Niilo Virkki, and many others contributed to the collection's maintenance and development. The collection has had some teaching functions and has been used to identify insects for the public.

Since November 1996, the collection has been located on the east wing of the Edificio de Agronomía (Agronomy Building) in front of the Biology Building, and it was officially inaugurated on May 9, 1997. In addition to its space devoted to research

TABLE 1. APPROXIMATE NUMBER OF HOLDINGS OF HEXAPODA IN THE MUSEO DE ENTOMOLOGIA Y BIODIVERSIDAD TROPICAL AT THE AGRICULTURAL EXPERIMENT STATION OF THE UNIVERSITY OF PUERTO RICO.

Taxon	Numbers and remarks	Taxon	Numbers and remarks
Protura	136	Psocoptera	629
Collembola	38	Phiraptera	253 ¹
Diplura	67	Hemiptera	7,647
Thysanura	29	Homoptera	10,063 ²
Ephemeroptera	793	Thysanoptera	6,899 ³
Odonata	2,456	Neuroptera	1,267
Phasmida	144	Coleoptera	12,682 ⁴
Orthoptera	729	Strepsiptera	10
Mantodea	46	Siphonaptera	317
Blattaria	1,422	Diptera	10,767 ⁵
Isoptera	2,622 ⁶	Trichoptera	2,258
Dermaptera	189	Lepidoptera	10,775
Embiidina	10	Hymenoptera	9,389
Zoraptera	81	Total	81,718
Other assorted specimens, in liquid preservatives			137,000
TOTAL			218,718

¹Including 171 identified specimens from Puerto Rico on slides.

²Including 891 identified specimens of aphids from Puerto Rico on slides.

³Including 1,453 identified specimens from Puerto Rico on slides.

⁴Does not include significant numbers of immature Scarabaeidae and Curculionidae in liquid preservatives.

⁵Including 100 identified *Aedes* larvae from Puerto Rico on slides. However, this number does not include significant holdings of *Anastrepha* immatures in liquid preservatives.

⁶Does not include significant holdings of specimens in liquid preservatives.

collections, the "Museo" has beautiful, new exhibits for the public. The stream of visitors and local media coverage have been overwhelming. The collection has been formally recognized by the administration of the Agricultural Experiment Station, and in its new location the collection occupies 336.5 square meters; an additional 119.7 square meters were recently transferred to the "Museo" and they are being developed.

HOLDINGS

The Museo de Entomología y Biodiversidad Tropical holds approximately 220,000 organisms representing the 27 orders of insects known to occur in Puerto Rico (Borror *et al.* 1989 classification; Myrocoryphia, Grylloblattaria, Plecoptera, and Mecoptera have not been reported for the island). Major collections include those of Thysanoptera, Aphididae (Homoptera), Trichoptera (recently donated by Dr. Oliver Flint, National Museum of Natural History, Washington, D. C.), Muscidae (Diptera), and an assorted collection pertaining to medical and veterinary entomology. The collection holds a modest number of mollusks, some Diplopoda, Chilopoda, as well as arachnids,

including spiders and scorpions. Details of the holdings for the Hexapoda are summarized in Table 1.

LOAN POLICY

Currently, loans are made for three years and are renewable following written notification. Loan requests should be addressed to Dr. R. A. Franqui. We request authors to forward reprints of any publications resulting from the use of our material. Also, we are pursuing the return of material on indefinite, or unauthorized loans.

REFERENCES CITED

- BORROR, D. J., C. A. TRIPLEHORN, AND N. F. JOHNSON. 1989. An introduction to the study of insects, 6th ed. Philadelphia, PA. Saunders College Publ. 875 pp.
- COOK, M. T., AND J. J. OTERO. 1937. History of the first quarter of a century of the Agricultural Experiment Station at Río Piedras, Puerto Rico. Bull. 44. Agric. Exp. Stn. 123 pp.
- PERKINS, R. L. C., AND G. W. KIRKALDY. 1907. Parasites of leaf-hoppers. Report of work of the Experiment Station of Hawaiian Sugar Planters' Association. Bull. 4. 66 pp.