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L. R. Cleveland Collection

ca.1936-1958

1 box (1.5 linear feet)

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The protistologist Lemuel R. Cleveland is credited with providing the first convincing evidence of the endosymbiotic relationship between protists and their metazoan hosts. A Mississippian by birth and graduate of University of Mississippi and Johns Hopkins, Cleveland spent the majority of his career at Harvard, specializing in study of the flagellates inhabiting the guts of termites and the wood-dwelling cockroach *Cryptocercus*.

This small collection consists of two papers by Cleveland (one in manuscript), four wood-mounted printing blocks, published color and black and white plates, and original paste-up figures for publications by protistologist L. R. Cleveland.

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Background on L. R. Cleveland

The protistologist Lemuel R. Cleveland is credited with providing the first convincing evidence of the endosymbiotic relationship between protists and their metazoan hosts. Born in rural Newton County, Mississippi, on Nov. 12, 1892, and a graduate of the University of Mississippi, Cleveland received his doctorate from Johns Hopkins in 1923, beginning a long career at Harvard in 1925.

Initially, Cleveland studied the lifecycle of the amoebae associated with human dysentery, but his discovery of a rich protistan biota in the hindgut of the wood-dwelling and wood-eating roach *Cryptocercus* altered the course of his research. Beginning with his post-doctoral research at Hopkins, he carefully parsed out the role of intestinal flagellates in enabling termites to subsist on a cellulose diet. Termites deprived of their gut flagellates, he showed, would slowly die of starvation unless those flagellates were reintroduced. This first demonstration of symbiosis between a protist and metazoan was followed by years of research on the taxonomy and life history of *Cryptocercus* protists and on chromosomal structures, both distinguished by Cleveland's skills as a microscopist.



Printing plate

Becoming a fellow of the National Academy of Sciences in 1952, Cleveland remained active even after his retirement from Harvard in 1959, having been lured to a position at the University of Georgia. He died on Feb. 12, 1969.

Scope of collection

This small collection consists of two papers by Cleveland (one in manuscript), four wood-mounted printing blocks, published color and black and white plates, and original paste-up figures for publications by protistologist L. R. Cleveland.

Inventory

Cleveland, L. R.: "Hormone-induced sexual cycle of flagellates": TMs submission to *Archiv fur Protistenkunde* 1956

Cleveland, L. R. and Maz Day: "Spirotrichonymphidae of stoloatermes," *Archiv fur Protistenkunde* 103 1958

Gardner, J. C. M.: TMs to L. R. Cleveland on locating a living supply of Archotermopsis 1936

2 items

Offprints of plates from articles in *Memoirs of the American Academy of Sciences*, etc. ca.1940-1955

Printing plates: *Leptosironymphae* ca.1940

Printing plates: unidentified figures ca.1940

3 items

Oxymonas paper: plates ca.1955

Trichonymphidae paper: final plates ca.1955

Administrative information

Access

The collection is open for research.

Provenance

Acquired from Michael Dolan, May 2015 (2015-049).

Processing Information

Processed by I. Eliot Wentworth, July 2019.

Language:

English

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