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# L. R. Cleveland Collection

*ca.*1936-1958 1 box (1.5 linear feet) **Call no.**: MS 1092



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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.

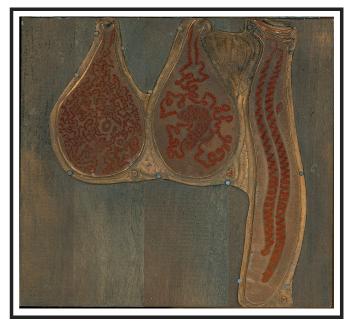
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Protistology

# Background on L. R. Cleveland

The protistologists 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 woodeating 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 died 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 be Cleveland's skills as a microscopist.



Printing plate

Becoming a fellow of the National Academy of Sciences in1952, 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

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### 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 stolotermes," Archiv fur Protistenkunde 103 1958 Gardner, J. C. M.: TLsS 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: Leptospironymphae 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

#### Copyright and Use (More information )

*Cite as:* L. R. Cleveland Collection (MS 1092). Special Collections and University Archives, University of Massachusetts Amherst Libraries.

### Search terms

Subjects

Cytology--Pictorial works Flagellata--Pictorial works

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