

PERONOSPORA PARASITICA ON LEAVENWORTHIA

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Several years ago, Prof. Jesse M. Shaver, George Peabody College for Teachers, Nashville, Tenn., informed the author that he had seen a downy mildew parasitizing *Leavenworthia* (Cruciferae), several species of which are to be found as endemics in the Central Basin area of Tennessee (Baldwin, 1945; Rollins, 1952). Following his retirement, Prof. Shaver (1956) wrote the author, giving the location of a station in Williamson Co. where he had seen the material, and suggesting April 25-May 5 as the most favorable time to make collections.

On April 3, 1957, Dr. Elsie Quarterman collected in Rutherford Co. the material upon which this brief report is based. The host was *Leavenworthia aurea* Torrey. The taxonomic status of this species has recently been reviewed by Rollins (1956), who differentiates the yellow-flowered populations found in southeastern Oklahoma from the lavender-to white-flowered forms of Tennessee, retaining the name *L. aurea* for the former, and proposing the name *Leavenworthia exigua* Rollins for the closely related Tennessee species.

The collection of *L. exigua* consisted of both flowering and fruiting material. Along the stems, but not on leaves, flowers, or fruits, were seen conidiophores and conidia characteristic of the Peronosporaceae. Oospores were not found. Seymour (1929) does not list the genus *Leavenworthia* in the "Host Index of the Fungi of North America", but reports *Peronospora parasitica* on 55 hosts belonging to 14 genera of the Cruciferae. The downy mildew on *L. exigua* was therefore tentatively identified as *P. parasitica* (Fr.)Fr.

Specimens were sent to Dr. Charles Gardner Shaw, State College of Washington, Pullman, Wash., for determination. He reported that he knew of no record of a downy mildew on *Leavenworthia*, and concurred in the opinion that the fungus in question was *P. parasitica*.

Mr. John A. Stevenson, Principal Mycologist in Charge, The National Fungus Collections, Beltsville, Maryland, kindly made a search of The National Fungus Collections, finding no specimens of *Peronospora*, or any other fungus, on the genus *Leavenworthia*. It seems probable, therefore, that this report of the occurrence of *Peronospora parasitica* on *Leavenworthia exigua* constitutes a new host record. Whether other species of *Leavenworthia* are infected is not yet known.

Specimens from the collection here reported are in herbaria

of the State College of Washington, Pullman, Wash.; The National Fungus Collections, Beltsville, Md.; and Vanderbilt University, Nashville, Tenn.

The writer wishes to express his thanks to all of the individuals named above for their kind cooperation.

SUMMARY

Peronospora parasitica (Fr.)Fr. is reported as a parasite of *Leavenworthia exigua* Rollins in central Tennessee. This is believed to constitute not only a new host record, but the first fungus of any kind found on a species of the genus *Leavenworthia*.

LITERATURE CITED

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- Ouida Carolyn Wells—Cytology and Genetics Group. Dr. Wells received the Ph. D. in Biology from Emory University.
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- Benedetto Nicoletti—Cytology and Genetics Group. Dr. Nicoletti received degrees in Agronomy and Biology from the University of Perugia, Italy.
- Eugene H. Perkins—Radiation Immunology Group. Dr. Perkins received the Ph. D. in Bacteriology from the University of Utah.
- Roderick K. Clayton—Microbiology Group. Dr. Clayton, who has been at Oxford University and Trondheim, Norway, under a National Science Foundation Fellowship, received the Ph. D. degree in Physics and Biology from the California Institute of Technology, Pasadena.
- Manfred S. Engel—Microbial Protection and Recovery Group. Dr. Engel received the Ph. D. in Microbiology from Cornell University.
- Jean Maisin—Mammalian Recovery Group. Dr. Maisin received degrees in Pathology and Electroradiology from Louvain University, Belgium.
- Gary Y. Kikudome—Cytology and Genetics Group. Dr. Kikudome will receive the Ph. D. from the University of Illinois.
- Johan H. Stuy—Microbial Protection and Recovery Group. Mr. Stuy, who received the Doctorandus degree in Chemistry from the University of Utrecht, Netherlands, has been associated with the Department of Biology at Brandeis University for the past year.

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