

SPECIAL ARTICLES

TWO INTERESTING APPLE FUNGI

Hypochnus.—A fungus which appears to be *Hypochnus ochroleuca*¹ of Noack published first in 1902 as *Hypochnopsis*, occurring on apples and quinces in Brazil,² and which does not seem heretofore to have been seen elsewhere than in Brazil, was collected by the writer in the mountains of North Carolina in the autumn of 1906 as being very destructive on apples and quinces in that region, especially in damp localities and on neglected trees. It was also later found on the pear in the same region by Mr. J. G. Hall.

Later specimens were received from Fatima on the coastal plain in the eastern part of the state, showing the fungus to be of much wider range than was at first suspected. The fungus, as at first seen, consisted of sclerotial bodies on the branches in proximity with affected leaves.

It was not until September 4, 1907, that spores of the fungus were found by Mr. J. G. Hall, of this laboratory, on leaves associated with twigs having the same sclerotial forms so frequently collected before. These spore-bearing specimens were collected at Mt. Airy by Professor F. C. Reimer and brought to this laboratory by him for examination. The fruiting stage exists as a filmy white to brownish network covering the lower sides of the affected leaves.

While it has not yet been possible to compare this fungus with authentic specimens of Noack's fungus, it seems very probable from the description that the species in hand is identical with his. The fungus is widespread and of serious import.

The localities so far known, from the most of which collections have been made, are:

On Apple

Horseshoe, August 18, 1906, F. L. Stevens.

Addie, August, 1906, F. L. Stevens.

Franklin, August, 1906, F. L. Stevens.

Hayesville, August, 1906, F. L. Stevens.

¹ Saccardo, "Sylloge Fungorum," XVI., 197.

² *Boletim do Instituto Agronomico do estado de Sao Paulo Em Campinas*, Vol. IX., 1898, Marco Numero 1. Sao Paulo, Brazil.

Marshall, August, 1906, F. L. Stevens.

Murphy, August, 1906, F. L. Stevens.

Robbinsville, August, 1906, F. L. Stevens.

Sylva, October 3, 1906, J. G. Hall.

Horseshoe, October 10, 1906, J. G. Hall.

Bryson City, March 7, 1907, G. P. Miller.

Fatima, March 14, 1907, J. F. Johnson.

Marshall, March 21, 1907, J. C. Tilson.

Fatima, April 8, 1907, J. F. Johnson.

Bryson City, April 8, 1907, F. C. McCracken.

Newton, August 28, 1907, B. B. Higgins.

Enfolia, October 31, 1907, B. B. Higgins.

Mt. Airy, September 2, 1907, F. C. Reimer.

On Pear

Sylva, October 3, 1906, J. G. Hall.

On Quince

Horseshoe, August 18, 1906, F. L. Stevens.

A Phyllosticta Canker.—A canker of apple twigs due to *Phoma* or a *Phyllosticta* has been repeatedly collected in the state as follows:

June 8, 1907, Cary, J. G. Hall.

August 19, 1907, Auburn, J. G. Hall.

May 1, 1907, West Raleigh, F. L. Stevens.

May 6, 1907, West Raleigh, F. L. Stevens.

August 30, 1907, Newton, B. B. Higgins.

The fungus seems to be wide-spread on this host and the cankers are destructive to the trees. The fungus was isolated and cultivated in agar plate culture in April, 1907, and inoculation experiments have been in progress since that time.

It assumes much more than local importance from the fact that, on examination of specimens which were kindly submitted by Mr. W. M. Scott, it appears that the fungus is identical with the one referred to by Scott and Rores³ as causing a serious apple fruit disease in Arkansas; one which is rapidly increasing in importance and destructiveness. Also from specimens kindly submitted by Professor John L. Sheldon, it seems to be the same as the fungus supposed by him to be *P. solitaria* E. & E., which he

³ "The Relation of Twig Cankers to the *Phyllosticta* Apple Blotch," *Proc. Benton Co. Hort. Soc. Arkansas*, August 8, 1907.

⁴ "Concerning the Relationship of *Phyllosticta solitaria* to the Fruit Blotch of Apples," *SCIENCE*, N. S., 26, 658, 183, August 9, 1907.

considers⁴ to be not only the cause of fruit disease and canker formation, but also of the familiar leaf spot so prevalent upon apple trees.

F. L. STEVENS

N. C. AGRICULTURAL EXPERIMENT STATION,
WEST RALEIGH, N. C.,
September 16, 1907

THE AMERICAN SOCIETY OF NATURALISTS

THE American Society of Naturalists will hold its annual meeting at Chicago during Convocation Week. The topic of the discussion, the date of which is the afternoon of Tuesday, December 31, will be: "Cooperation in Biological Research." The speakers will be as follows:

Dr. Frank R. Lillie.
Dr. William Trelease.
Dr. H. H. Donaldson.
Dr. Simon Flexner.
Dr. W. H. Howell.
Dr. James R. Angell.

The dinner and the address of the president, Professor J. Playfair McMurrich, of the University of Toronto, are arranged for the evening of December 31. The exact hour and place for the discussion and also for the dinner will be given in a later announcement.

EDWARD L. THORNDIKE,
Secretary

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

SCIENTIFIC NOTES AND NEWS

THE National Academy of Sciences is holding its autumn meeting at Columbia University, New York City, this week.

THE trustees of the Carnegie Foundation for the Advancement of Teaching held their annual meeting at the offices of the foundation in New York City on November 20.

THE Eastern Branch of the American Society of Zoologists meet at New Haven on December 26, 27 and 28.

THE winter meeting of the Bibliographical Society of America will be held in Chicago, December 30-31. The discussion of "The present problems of the bibliography of sci-

ence," will be opened by Dr. Cyrus Adler, of the Smithsonian Institution.

THE New York State Teachers' Science Association will meet at Ithaca on December 27 and 28.

THE Central Passenger Association reports that card orders will not be required in the territory of the Central Passenger Association, but that tickets at the reduced fare, for the Chicago meeting of the American Association for the Advancement of Science and affiliated societies, have been made available to any applicant. Card orders, therefore, are necessary only in the territory of the Trunk Line Association.

ON the occasion of the dedication of its new natural history museum the Senckenberg Natural History Society of Frankfurt elected several corresponding members, including Dr. Hermon C. Bumpus, director of the American Museum of Natural History and Dr. E. Ray Lankester, director of the British Museum of Natural History.

THE Anders-Retzius medal, bestowed every five years on an anatomist or a physiologist, has been awarded to Professor G. Schwalbe, of Strassburg.

A PORTRAIT of Professor Arthur Schuster has been presented to Manchester University. It will be remembered that Professor Schuster recently retired from the active duties of the chair of physics.

DR. SAMUEL G. DIXON, state health commissioner of Pennsylvania, has been appointed by the Secretary of the Treasury to represent this country as an official delegate to the Third International Sanitary Convention of the American Republics, to be held in the City of Mexico, December 2.

PRESIDENT DAVID STARR JORDAN, of Stanford University, will lecture under the auspices of the New York Board of Education at Cooper Union on November 23. The subject is "The Human Harvest—a Study of the Biological Effects of War."

ON Tuesdays and Fridays at 8 P.M., beginning on November 12, Dr. Gary N. Calkins is giving a course of Lowell lectures on "The