

Research Review

Swamps Provide First Stage For University Coal Research

By KAY MILLS

The Everglade swamps of southwest Florida provide one stage for Penn State scientists' study of the beginning of coal formation. This is a phase of the multi-faceted coal research program here.

Members of the Coal Research Section, under the direction of Dr. William Spackman, professor of paleobotany, travel during the summer to sub-tropical swamp regions to study the peat accumulating in that environment.

"By visiting the Bahamas, Vermont, the Dakotas, Alaska, Alabama and Pennsylvania," Spackman said, "we are tracing the formation of coal from peat to lignite through bituminous and anthracite coals."

"In these modern coal-forming environments, we hope to determine what changes take place as coal develops and what kind of coal is formed under 'x' conditions," he added.

"Then we can go back to the original coal seams and tell under what conditions they were

formed," Spackman explained. In this way, he added, the history of individual coal seams—their climate, vegetation and geography—can be reconstructed.

This basic study helps develop fundamental information on the nature of coal and coal seams, Spackman said, adding that the research is sponsored by the National Science Foundation.

Another phase of coal research may benefit steel companies, who are supporting studies here on how the composition of coal affects its reaction when used in making coke, Spackman said. Steel companies will then be able to select for the types of coal which make more and better coke, he added.

Quality coke, used in blast furnaces, will increase output and quality of iron produced, Spackman said.

In a third study area, plant historians work in an attempt to reconstruct the vegetation history of the eastern North American coast since the end of the glacial period.

For example, by studying fossil spores and pollen, an age of 10,000 years has been set for the peat at the bottom of the Bear

Meadow bog near Boalsburg, Spackman said.

The scientists hope to make similar studies along the Appalachian mountain chain to describe the influence of the glacial period on climate and other factors in this area and to the south, he said.

Spackman said that often a formation may seem completely barren of fossils but it almost always has these microfossils—spores and pollen.

Age can be determined by measuring the amount of carbon that has been decayed by normal radioactivity, Spackman added. This count is an index to how long the material has been sitting there, he said. Basically, he explained, this describes the carbon 14 method of age determination. Fallout from atmospheric nuclear testing makes the process more difficult, he said, but it does not change the rate of carbon decay.

The section also works with the United States Atomic Energy Commission, the oil industry and the commonwealth's coal research board. Spackman has been involved in such research here for about 10 years and is aided in projects by students working for advanced degrees.

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ROOM—private bath, shower, for two students; central. Call Mrs. Cop, AD 7-7792 or AD 7-4850.

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SINGLE ROOM for rent; very close to campus. Call Ron at AD 7-3332.

AVAILABLE IMMEDIATELY—2 room and bath efficiency. Completely furnished. Quiet, clean. Free parking. AD 7-2986, \$65 month. 164 E. McCormick Ave.

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1966 CHEVROLET sedan; motor, body in top condition. Straight stick, two-tone. Phone AD 7-4498.

BUICK SPECIAL, 1955 4-door sedan, 2-tone. Clean, good condition. Best offer. AD 8-8839.

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'52 MGTD. Two bent fenders, \$550 each. Call Egger at AD 7-4454 from 1 to 6.

1951 BLUE FORD Convertible; four brand new tires. Call AD 7-3967.

MOTORCYCLES—1958 T-110 with dual carbs; also H. D. Hummer. AD 8-1639 after 11:30 p.m., ask for Steve.

ONE TICKET to California game at cost. Call Connie, UN 5-3290.

APPLES, CIDER, Indian Corn, Gourds and house plants at the Hort Show, Sat. and Sun. in the Livestock Pavilion.

HELP WANTED

ASSISTANT MANAGER—work for room. See Mrs. Stitzer, The Colonial, AD 7-4850 or AD 7-7792.

WANTED

STUDENTS INTERESTED in part-time employment, convenient hours, excellent pay, train now with national concern. Call AD 8-8555.

RISE TO Pittsburgh wanted. Leave after 1 p.m. Friday, Call UN 5-2531 before 11 p.m. or UN 5-2950 after 11:30, ask for Meg.

DOUBLE ROOM in Pollock or South in exchange for double with bath in Simmons. Call UN 5-5137.

RISE TO and from N.Y.C. or vicinity, Oct. 27, 29 for three girls. Call Audrey, UN 5-5153.

STAFF MEMBER needs ride to and from University from 1400 block W. College Ave. UN 5-6335, ask for Rita.

WANTED: APPLICATIONS being taken for full time sales ladies. Apply between 10-12 Monday thru Friday. Mrs. Winn, F. W. Woolworth Co.

RIDERS FROM Philadelphia to State College. Leave Philadelphia Friday, Oct. 27, return Sunday, Oct. 30. Round trip \$5.00; one way \$3.00. Call Nelson AD 8-6296.

RIDERS TO and from College Park, Maryland vicinity; Maryland game weekend. Call Jerry AD 7-2548.

STUDENTS EARN UP to \$1.50 per hour setting Bowling Pins two or three evenings of your choice. Downtown Dux Lanes, 129 S. Pugh.

WORK WANTED—TYPIST with experience with all colleges of the University will type thesis, term papers or other work at reasonable rate. Call AD 7-2835.

LOST

GREEN PARKER 51 Pen, Monday, Oct. 16, initials J.J.B., broken pocket clip—between North Allen St. and Willard Hall. Reward. Phone AD 7-2247.

LOST! BLACK Contact Lens case on campus. Reward. Call AD 7-3453.

ONE PAIR of dark frame glasses. Call Ernie Letcher AD 8-9440.

ON FRIDAY NITE—girl's gold wrist watch. Will be reward for return. Please call Bonnie UN 5-5816.

ONE KAPPA SIGMA fraternity pin; somewhere between the house and Ewing. If found call AD 7-2044. Reward.

BLUE AND SILVER Parker Pen near Weaver. Reward. Call Ken UN 5-2702.

TWO THIN gold and pearl bracelets between Pollock 2 and Willard. Reward for return. Sentimental value. Call Marge UN 5-3609.

PSYCHOLOGY OF Advertising Text lost in Journ Library. Return there or call AD 8-1916 or UN 5-2531.

PANIC! ONE FRATERNITY Pin, Beta Theta Pi. Please call Sue, UN 5-5729.

NAVY PURSE, glasses inside which are desperately needed for exams. Reward. Turn in at HUB desk.

GOLD WESTCLOX Watch with black band. Please call Linda, UN 5-5978.

LOST — ONE Alpha Omicron Pi sorority Pin on campus; in vicinity of Rec Hall. Reward. Call Pat UN 5-8948.

MEALS

LUNCHEON SUGGESTION: Fish and Chips—just 40c. Our own made Soup and Sandwiches. Open 6 a.m. - 1 a.m. Next to Murphy's, Lillian's Restaurant.

MISCELLANEOUS

PART-TIME JOBS available immediately for several students who are willing to spend 10-12 hours per week. Call Mr. Juris at Hotel State College and leave name and number to call.

MANAGEMENT CLUB, Wednesday, Oct. 25, 7:30 p.m., 128 Sackett Building. Speaker: Mr. Paul Crouch from Alcoa.

EAT DINNER at the Maple Room Home Economics Building Monday through Thursday 5:15 - 6:30. Excellent food, freshly baked hot breads, courteous service, reasonable prices.

PSOC ROCK CLIMBING meeting, Morris, election of officers, discuss Christmas Mexico trip, Wednesday 7 p.m. 112 Buckhout Lab.

SOCIAL CHAIRMEN: The Nelson Griffith Quartet (piano, bass, trumpet, drums) has a limited number of dates not yet booked. This is a professional combo specializing in music for dancing and listening. Call Carl at UN 5-6357 or AD 7-2776.

PSOC—ROCK CLIMBING Division meeting, 7 p.m., Wed. Elections; Christmas Mexico trip.

ATTENTION EXPERIMENTERS in International Living, past, present, future, or just interested. Call Marge UN 5-8609 or UN 5-2531.

PSOC—SMALL GAME Hunt Sat., 6:30 p.m. Sign up at HUB desk.

SCIENCE FICTION enthusiasts—see the film "Metropolis" about an amazing city of the future, Friday, Nov. 3, 7 & 9, HUB. Tickets at HUB desk.

PSOC—SKEET SHOOT Sunday, 2 p.m. Sign up at HUB desk.

CLASSIC FILM admirers—see one of the greatest silent films made, Fritz Lang's METROPOLIS, Friday, Nov. 3, 7 & 9, HUB. Tickets at HUB desk.

THIS SATURDAY NIGHT

8:00 P.M.

Schwab Auditorium



The JAZZTET

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Art Farmer

and

Benny Golson

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Nittany News

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\$1.50 FOR NON-MEMBERS