

PLANT SCIENCE BULLETIN

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VOLUME 3

APRIL 1957

NUMBER 2

16 mm. Instructional Films for College Botany (1956)

Prepared by Committee on Education

Marie Clark Taylor, Howard University

Title	Producer ¹	Date	Timing ²	Sound ³	Color ⁴	Description
LIFE CYCLES						
The Onion	IFB	1950	11	Sd	Bw	
Living Plants	Fltwd	1955	10	Sd	Bw	Shows time-lapse
Life of a Plant (Pea)	EBF	1950	11	Sd	Col	
Dodder	EBF	1931	11	Sd	Bw	Life cycle and destructive effects
Poison Ivy Picnic	NFBCa	1954	2	Sd	Col,Bw	Cycle, effects, treatment
Tree Portraits	Harlow	1955	22	Sd	Col	Identification of 30 species of trees, seasonally, by leaf, flower, fruit, twig, bud, bark
Time Lapse Studies of Growing Trees	NYSt	1953	12	Sd	Col	Unfolding of buds, development of fruits, dispersal of seeds
Birth of a Southern Pine	SoPu	1949	15	Sd	Col	Flowers, cones, seeds, young pls.
Glory of Spring	IFB	1950	11	Sd	Col	Opening of buds of trees and shrubs
Miracle of the Trees	IFB	1950	11	Sd	Col	Opening of buds of trees and shrubs
Seasonal Change in Trees	Cor	1949	10	Sd	Bw	Seasonal aspect and classification
The Fern	Dartm		2 Rls	Si	Bw	
Ferns	AlmF	1951	10	Sd	Bw	Includes evolution of ferns
Life Story of a Fern	UW-ED	1949	10	Sd	Bw	
Miracle of the Moss	AlmF	1952	10	Sd	Bw	Includes physiology
Gathering Moss	Ideal		11	Sd	Bw	
Budding of Yeast Cells	Std		15	Si	Bw	Life processes during 8 hours
Budding Yeasts (Monilias)	SocAB	1947	4	Si	Bw	
Pin Mold	IFB	1950	10	Sd	Bw	A typical fungus
Magic Myxias	Ideal	1936		Sd	Bw	Myxomycetes
Growth of Bacteria, Yeast and Molds	SocAB	1933	20	Si	Bw	Includes methods of culture
Microscopic Plant Life	ASBE		30	Si	Bw	Molds and Yeasts
Life Cycle of a Yeast Cell	SoIll	1951	17	Sd	Bw	Demonstrates micromanipulator and other modern tools
Syngamy and Alternation of Generations in Allomyces	Brice	1953	20	Si	Bw	Phase-contrast in a water mold includes animated sequences
Bacteria, Friend or Foe	EBF	1954		Sd	Col	Types, habits, conditions
Blister Rusts—Enemy of the Pines	UW-Gvt	1948	13	Sd	Col	Includes hosts, methods of control, economic significance
Dutch Elm Disease	NFBCa	1948	10	Sd	Col	Symptoms, efforts to control
Stem Rust	UW-Gvt	1950	20	Sd	Col	Hosts, controls, quarantine
Celite—(Diatoms)	J-M Caravel	1952	35	Sd	Col	First half of film explains diatomaceous earth through life history
PHYSIOLOGY						
Plant Oddities	ITF		10	Sd	Col	Insectivorous, sensitive—influences of light, temperature, and moisture upon motion
Plant Reactions	Acad	1950	11	Sd	Col	Reactions to water, light, gravity, chemicals
Power of Plants	AlmF	1950	11			Lifting of rocks, jars, weights
Climbing Plant	UW-Educ	1950	10	Sd	Bw	
Sensitivity of Plants	AlmF	1950	11	Sd	Bw	Simple laboratory experiments with electricity, carbon dioxide, heat, gravity, light, ether
Carnivorous Plants	FoND					
Carnivorous Plants	Moody	1955	10	Sd	Col	Trap mechanisms under photomicrography
Insect Catchers of the Bog Jungle	Harlow	1954	10	Sd	Col	Time-lapse study of mechanisms

¹ Producer may be identified in Section II, Producers and Distributors.

² Timing = Number of minutes for completion.

³ Si = Silent; Sd = Sound.

⁴ Col = Colored Films; Bw = Black-White Films.

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Plant Traps	EBF	1954	11	Sd	Col,Bw	Time-lapse of trapping mechs.
Life of a Plant	EBF	1950	11	Sd	Col	Life cycle plus animation for internal processes
Root Development	UW-Educ	1950	9	Sd	Bw	Microphotography of root structure and growth, animated diagrams
Allergic Diseases, 1st reel	Ldrl	1939		Si	Col	Relation of pollen to hay fever. 2nd reel is medical
The Atom and Biological Science	EBF & USAEC		12	Sd	Bw	Identifies and illustrates uses of radioactivity on growth, heredity
The Atom and Agriculture	EBF & USAEC		10	Sd	Bw	Tagged atoms in fertilizers, photosynthesis, chromosomes, etc.
Gift of Green	SuInf	1946	20	Sd	Col	Produced by NY Botanical Gardens. Shows the green key to all life. Very highly rated by botanists
Photosynthesis	UW-Ed	1950	14	Sd	Bw	
The Riddle of Photosynthesis	Handel USAEC	1955	12½	Sd	Bw	Research at Berkeley with radioactive carbon as tracer
Color of Life	NFBCa	1954	24	Sd	Col,Bw	Physiological processes in maple, and seasonal change of colors
Carbon Fourteen	EBF	1954	12	Sd	Col,Bw	Tracing history and processes of growth, decay, photosynthesis with radiocarbon
Hunger Signs	NaFA	1946	15	Sd		Virgin soil, soil history, malnutrition in plants and animals; causes and correction
Eternal Cycle	Handel	1954	12½	Sd	Bw	Biological cycles and other experiments possible with radioisotopes
Atomic Greenhouse	Handel	1954	12½	Sd	Bw	Experiments to determine absorption and utilization of various soil atoms
Nitrogen Cycle	UW-Ed	1953	14	Sd	Bw	Links atmosphere, soils, root hairs, nodules, fungi and bacteria
Putting Nitrogen in its Place	SubFa	1954	13	Sd	Col	History and development of ammonia as fertilizer to supply nitrogen
The Plant Speaks 1. Through Deficiency Symptoms 2. Through Leaf Analysis 3. Through Tissue Tests	AmPotI	1945	25 18 14	Sd	Col	A series of 4 reels showing mineral deficiencies in plants and effective tests
Energy Release from Food	Upjohn					A molecular study
Enzymes in Dough Fermentation	Std		45	Si	Bw	Cellular actions of proteases, invertase, and diastase in production of bread
CYTOLOGY						
Seifriz on Protoplasm	EFLA & IND Un	1945	26	Sd	Bw	Physarum in micurgy, anesthesia, toxicity, stimulation, fusion, torsion
Plant Growth and Mutation	Brice	1952	11	Sd	Bw	Nuclear and cell division in stamen hairs of Tradescantia
HEREDITY						
The Hybrids (Corn)	All-Ch		15	Sd	Col	Procedures in securing high yielding seed corn
The Great Story of Corn	FarmFFed		31	Sd	Col	From prehistoric time to latest in hybridization
Heredity Variations in Coleus	OhioSt	1949	11	Sd	Col	
Wisconsin Corn Hybrids	WisU	1950	45	Sd	Col	Research at Wisconsin Agriculture Experiment Station
Breeding Better Food Crops	NaGB	1949	20	Sd	Col	Production of new quality varieties of vegetables in California
Modern Roses	AssoF	1945	30	Sd	Col	Steps in the production of hybrids
Wizards of Svalof	USDA	1941	14	Sd	Bw	Various techniques of wheat breeders at Svalof
Vegetable Plant Propagation	EBF	1941	30	Si	Bw	Cuttings, layering, separation, grafting
SEED DISPERSAL						
Seed Dispersal	UW-Ed	1949	18	Sd	Bw	Close-ups of devices
Sow and Sow	AlmF	1951	10	Sd	Bw	Emphasis on agents of dispersal
Green Vagabonds	AlmF	1951	10	Sd	Bw	
BACTERIOLOGY						
Elementary Laboratory Techniques in Bacteriology	UnSoCal	1954	20	Sd	Col	Lectures and demonstrations of cultures, transfers, microscope study
Studies in Bacteriology (3 Films)	UW-Govt	1953	4 6 8	Si	Bw	Part I. Taxonomy and classification Part II. Motility of bacteria Part III. Cell division of bacteria

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Pasteur's Legacy	MFC	1946	24	Sd	Bw	Pasteur's scientific career and many of his experiments. Produced for Society of American Bacteriology
Story of Louis Pasteur	TFC	1935	90	Sd	Bw	Pasteur's crusade to establish the microbe theory of disease with anthrax
Man Against Microbe	Metro	1932	15	Sd, Si	Bw	Leewenhoek, Pasteur, Lister, Koch, Behring
Cellulose Decomposition in Nature	IoSt	1941	30	Si	Bw	Microbes which convert cellulose into soil constituents
You Can, Too (3 Reels)	Heinz			Sd	Bw	History of food preservation from Napoleon to modern canning industry
The Smallest Foe	Ledrl		20	Sd	Col	Research equipment, facilities, and skill against viruses at Lederle
And the Earth Shall Give Back Life	Squibb	1952	25	Sd	Bw	The quest for earth-derived antibiotics, isolation, production testing, and clinical trials
CONSERVATION						
Birth of the Soil	EBF	1948	10	Sd	Col	Origin of the constituents of a good soil
Topsoil; Water; Soil and Water Conservation; Erosion (4 Films)	USDA	1948	11	Sd	Bw	The dependence of city and rural communities upon farmland topsoil
Living Earth Series	EBF	1948	11	Sd	Col	
1. Birth of Soil						1. Formation of topsoil
2. This Vital Earth						2. Interrelation and balance
3. Arteries of Life						3. Water and forests
4. Seeds of Destruction						4. Types of erosion and conservation
Living Forest Series	EBF	1949	11	Sd	Col	
1. Forest Grows						
2. Forest Produces						
3. Forest Conservation						
4. The Living Forest						
Yours is the Land	EBF		22	Sd	Col	Wise management of soil, forests, biota, water
Just Weeds	NFBCa	1945	20	Sd	Col	Weed damage, identification and control
Lost Harvest	dPont	1947	22	Sd	Col	Improved crops through herbicides
Story of Karmex DL Herbicide	dPont		20	Sd	Col	The utilization of the specific herbicide in cotton

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SECTION II PRODUCERS AND DISTRIBUTORS

Symbol	Name	Address
Acad	Academy Films	Box 3088, Hollywood, California
All-Ch	Allis-Chalmers Mfg. Co.	Advertising Dept., Box 512, Milwaukee, Wisconsin
AlmF	Almanac Films Inc.	516 Fifth Avenue, New York 18, New York
AmPot	American Potash Institute	1155 Sixteenth Street N.W., Washington 6, D. C.
ASBE	American Society of Baking Engineers	Dept. of Visual Education, 208 Third Avenue, S.E., Minneapolis, Minn.
AssoF	Association Films	347 Madison Avenue, New York 17, New York
Brice	Arthur T. Brice	P. O. Box 423, Marin
Cara	Caravel Films Inc.	730 Fifth Avenue, New York, New York
Coro	Coronet Films	Coronet Bldg., Chicago 1, Illinois (Your Local Office)
Dartm	Dartmouth College	Hanover, New Hampshire
dPont	E. I. DuPont de Nemours & Company	Wilmington 99, Delaware
EBF	Encyclopedia Britannica Films Inc.	1150 Wilmette Avenue, Wilmette, Illinois
EFLA	Educational Film Library Association	345 East 46th Street, New York, New York
FFF	Farm Field Foundation	1731 Eye Street, N.W., Washington 6, D. C.
Fltwd	Fleetwood Films Inc.	10 Fiske Place, Mount Vernon, New York
FoND	Films of Nations Distributors, Inc.	62 West 45th Street, New York 36, New York
Harlo	William Harlow	903 Comstock Avenue, Syracuse 10, New York
Heinz	H. J. Heinz & Company	Advertising Department, Box 57, Pittsburgh 30, Pennsylvania
Hndl	Handel Film Corp.	6926 Melrose Avenue, Hollywood 38, California
Ideal	Ideal Pictures Corp.	2834 East 8th Street, Chicago, Illinois
IFB	International Film Bureau	57 East Jackson Boulevard, Chicago 4, Illinois
IndU	Indiana University	Audio-Visual Center, Bloomington, Indiana
IoSt	Iowa College	Visual Instruction Service, Ames, Iowa
J-M	Johns Manville Sales Corp.	22 East 40th Street, New York 16, New York
Ldrl	Lederle Laboratories	Film Library Division, 30 Rockefeller Plaza, New York, New York

Metro	Metropolitan Life Ins. Co.	Health and Welfare Division, 1 Madison Avenue, New York 10, New York
MFC	Modern Film Corp.	729 Seventh Avenue, New York 19, New York
Moody	Moody Institute of Science Education	Film Division, 200 South Juniper, Philadelphia, Pennsylvania
NFBCa	National Film Bureau of Canada	1270 Avenue of Americas, New York 20, New York
NFA	National Fertilizer Assn.	616 Investment Building, Washington 5, D. C.
NGB	National Garden Bureau	407 South Dearborn Street, Chicago 5, Illinois
NYSta	New York State	Syracuse University, College of Forestry, Syracuse, New York
Ohio	Ohio State University	Photography Department, Columbus 10, Ohio
SocAB	Society of American Bacteriologists	Committee on Visual Instruction in Microbiology, Dr. Harry F. Morton, Chairman, School of Medicine, University of Pennsylvania, Philadelphia, Pa.
SoIll	Southern Illinois University	Carbondale, Illinois
SoPu	Southern Pulpwood Concervation Association	1506 First National Bank Building, Atlanta 3, Georgia
Squibb	E. R. Squibb & Sons	745 Fifth Avenue, New York 22, New York
Std	Standard Brands	2739 Loch Raven Road, Baltimore 18, Maryland
SubFa	Suburban Farm Service Co.	Whipping, New Jersey
Sulnf	Sugar Information	52 Wall Street, New York 5, New York
TFC	Teaching Films Custodians, Inc.	25 West 43rd Street, New York 36, New York
Upjohn	Upjohn Company	P. O. Box 2710, Washington 13, D. C.
USAEC	U.S. Atomic Energy Commission	Public Information Service, 1901 Constitution Avenue, N.W., Washington 25, D. C.
USDA	U.S. Department of Agriculture	Publications, Washington 25, D. C.
UW-Ed	United World Films, Inc.	Educational Film Department, 1445 Park Avenue, New York 29, New York
UW-Gvt	United World Films	Government Films Department, 1445 Park Avenue, New York 29, New York
USoCal	University of Southern California	Department of Cinema, Medical Bacteriology, 3518 University Avenue, Los Angeles 7, California
WisU	University of Wisconsin	Bureau of Visual Instruction, Extension Division, 1312 West Johnson Street, Madison 6, Wisconsin

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NSF GRANTS FOR 1957

Univ. of Oklahoma: An NSF grant will provide funds for grants-in-aid for competent students and investigators in biology to work at the 1957 summer term of the university's Biological Station, Lake Texoma. Three types of grants are available: 1. post-doctoral grants of \$500; 2. predoctoral grants of \$350; 3. \$200 grants for superior undergraduates and beginning graduate students. Investigations to be pursued must be suitable for the Biological Station. Applications should be sent by April 10 to Carl Riggs, U. of Okla. Biological Station, Norman, Okla.

Univ. of Oregon: NSF will sponsor a 1957 summer institute in marine biology at Charleston, Oregon, in cooperation with Univ. of Oregon. Planned for college teachers of botany and zoology who need first-hand experience in marine biology, the program provides stipends, subsidies for dependents, and limited travel funds for 20 participants. Site of the program is Oregon Institute of Marine Biology at Charleston. Closing date for applications is April 1, 1957. For information and application blanks, write Robert W. Morris, director, NSF Summer Institute in Marine Biology, Univ. of Oregon, Eugene, Oregon.

Other notes on NSF grants: Approximately 4500 high school and 250 college teachers of science will

receive grants for 1957 summer institutes supported by NSF to the tune of \$4,800,000. Eighty-six institutes will be open only to high-school teachers of science and math., 4 will be open to both high-school and college teachers, and 5 to college teachers only. Institutes for both high-school and college teachers will be held at Claremont College, Claremont, Calif.; Montana State College, Bozeman, Mont.; Univ. of Washington, Seattle; Univ. of Kansas, Lawrence, Kansas. Institutes for college teachers only will be held at Univ. of Oregon, Eugene (Marine Biol.); Cornell Univ., Ithaca, N. Y. (Botany); Univ. of N. Carolina, Chapel Hill, N. C. (Chemistry); Univ. of Illinois, Urbana (Geology); Univ. of Colorado, Boulder (Math.). In addition, NSF is supporting 1957-1958 academic year institutes at 16 U. S. colleges and universities; information concerning these academic-year institutes and grants for them may be obtained from the NSF office, Washington 25, D. C.; a sum of \$4,065,000 has been appropriated for grants to the 750 high-school science teachers who will attend these academic-year institutes and for other institute expenses.

PERSONAL AND PROFESSIONAL

Edgar Anderson resigned the Directorship of Missouri Botanical Garden in January 1957, and Hugh Cutler

has been appointed Acting Director of that institution. Anderson has received a Guggenheim grant and is currently working in mathematics and statistics at Princeton; his grant, which will support his research for at least 3 years, will enable him to conduct additional work in statistics as applied to botanical and zoological problems, to complete west coast studies of hybrid *Salvias*, to carry out some work in Ethiopia, and to engage in other botanical and bio-statistical activities. On his return to Mo. Bot. Gard., Anderson will have the title Curator of Useful Plants.

Recent deaths: Howard E. Pulling (professor-emeritus, Wellesley); John M. Beal (U. of Chicago); A. J. Kluyver (Delft, Netherlands), a Corresponding Member of Bot. Soc.; J. H. Hoskins (Univ. of Cincinnati); Henry R. Kraybill, Meat Institute Foundation, Chicago.

Recent retirements: B. C. Tharp (U. of Texas); Harold St. John (U. of Hawaii); Alma G. Stokey (Mt. Holyoke); Heber W. Youngken (Mass. College of Pharmacy); Cecil Yampolsky, New York; Walter S. Fields (USDA).

Hardy L. Shirley, Dean of State Univ. College of Forestry at Syracuse U., has been made an honorary member of the Society of Finnish Foresters for "outstanding contributions to the field of international forestry."

Harry J. Fuller, U. of Ill., is vice-president for Section G (Botanical Sciences) of AAAS for 1957.

W. P. Jacobs, Princeton Univ., will spend the 1957 spring and summer at Marine Station, Naples, Italy, on an NSF fellowship to investigate developmental problems of siphonaceous algae.

K. B. Raper, U. of Wisc., has received a George I. Haight Travelling Research Fellowship from the Wisc. Alumni Research Foundation. Dr. Raper will visit and work at labs. in France, Netherlands, and England.

V. H. CHASE HERBARIUM ACQUIRED BY UNIVERSITY OF ILLINOIS

The Univ. of Illinois has purchased the 40,000 specimen herbarium of Virginius H. Chase (a nephew of Mrs. Agnes Chase) of Peoria Heights, Illinois. Born in 1876 in Wady Petra, Ill., Dr. Chase attended country school, spent two winters at Princeville Academy, the final portion of his formal education. His degrees, M.S. from Kenyon College and Doctor of Science from Bradley University, are honorary. The Chase herbarium is the last of the larger private herbaria in Illinois not yet turned over to a university or museum and represents the residue of a much larger collection distributed through 50 years to several of the large herbaria of the U. S. About $\frac{1}{3}$ of the specimens were collected in Illinois, the others from other portions of the U. S., Mexico, Europe, South America, and New Zealand. The specimens are of exceptionally high quality and scientific value. This addition to the U. of Ill. herbarium brings its total accessions to about 400,000, making that herbarium the 4th largest in American state universities (larger herbaria are those of Universities of Calif., Minn., and Mich.). The Chase herbarium is the second

important botanical acquisition of the U. of Ill. Bot. Dept. within two years, the first a collection of Gregor Mendel manuscripts, specimens, and relics of his life and work. Curator of the U. of I. herbarium is G. Neville Jones.

ANNOUNCEMENT OF DARBAKER PRIZE IN PHYCOLOGY FOR 1957

The Darbaker Prize Committee of the Botanical Society of America will accept nominations for an award to be announced at the annual meeting of the Society in 1957. Under terms of the bequest, the award is to be made for meritorious work in the study of the algae, particularly the microscopic algae. The Committee will base its judgment primarily on the papers published by the candidate during the last two full calendar years previous to the closing date for nominations. Only papers published in English will be considered. Nominations for the 1957 award, accompanied by a statement of the merits of the case and by reprints of the publications supporting the candidacy, should be sent to the Chairman of the Committee in order to be received by May 1, 1957. The value of the Prize for 1957, which depends on the income from the trust fund, is expected to be about \$200.

Harold C. Bold, Vanderbilt University; Robert W. Krauss, University of Maryland; Ruth Patrick, Academy of Natural Sciences of Philadelphia; Richard C. Starr, Indiana University; George F. Papenfuss, Chairman, University of California, Berkeley, California.

OPPORTUNITY KNOCKS

A member of Bot Soc. proposes that PSB make this suggestion: that the visits of many foreign botanists (especially Europeans) to the International Botanical Congress in Canada in 1959 will furnish an opportunity for American colleges and universities to invite some of these visitors to give lectures or to conduct short summer courses preceding and following the sessions of the Congress; names of distinguished foreign botanists who are Corresponding Members or Active Members of Bot. Soc. are included in the new Bot. Soc. Yearbook now in press. Honoraria paid to these botanists for such lectures and short courses will help defray the expenses of their travel. Think it over and be especially nice to your Dean and President if you plan to act on this suggestion.

NSF SUMMER INSTITUTE IN BOTANY AT CORNELL

The program for this institute, described in the last number of PSB, is the following, according to Director Harlan Banks:

June 30-July 5: Nuclear Cytology (Norman Giles, Yale); Developmental Anatomy (Adriance Foster, U. of Calif.); Economic Botany (H. J. Fuller, U. of Ill.).

July 7-July 12: Photosynthesis (Robert Emerson, U. of Ill.); Developmental Anatomy (Adriance Foster

Plant Science Bulletin

HARRY J. FULLER, Editor

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—continued); Species Differences—Their Recognition and Measurement (Edgar Anderson, Mo. Bot. Garden).

July 14-July 19: Water Relations (Paul Kramer, Duke Univ.); Growth and Metabolism, including Chromatography and Isotopic Techniques (F. C. Steward, Cornell); Paleobotany, Its Role in Morphology (Henry Andrews, Washington Univ.).

July 28-Aug. 2: Paleobotany (continued); Algae (Harold Bold, Vanderbilt Univ.).

Aug. 4-Aug. 9: Genetic Concepts in Biology (George Beadle, Cal. Tech.); Some Non-vascular Cryptogams (Harold Bold, Vanderbilt Univ.).

Applications from college teachers for grants for this summer institute should reach Director Banks before April 15, 1957.

GREAT SMOKY WILDFLOWER PILGRIMAGE

The 7th Annual Wildflower Pilgrimage to Great Smoky Mts. National Park at Gatlinburg, Tenn., will occur April 24-27, 1957. The pilgrimage, to be led by park naturalists, botanists, and photographers, will include trips to study wildflowers, mosses and ferns, and birds, and illustrated evening lectures. For further details, write A. J. Sharp, Dept of Botany, Univ. of Tennessee, Knoxville.

NSF RESEARCH PROPOSALS

Division of Biol. and Med. Sci. of Nat. Sci. Foundation announces that the next closing date for receipt of research proposals in life sciences is May 15, 1957. Proposals received before that date will be reviewed at the summer meetings of NSF's Advisory Panels and disposition will be made about 4 months following this date. Proposals received after May 15 will be reviewed following Fall closing date, Sept. 15, 1957. In addition to funds for support of basic research, limited funds will be available for support of research facilities and programs at biological field stations. Inquiries should be addressed to NSF, Washington 25, D. C.

TREASURER TO EDITOR TO YOU

Bot. Soc. Treasurer has reported to PSB Editor that he receives many notices of address changes in the

autumn and at the time when dues bills become payable in December, that most of these notices are unaccompanied by information concerning what lies behind these changes. The Treasurer suggests that, if members reporting new addresses were to include some personal information about these changes (e.g., do some of these indicate promotion in rank on changing institutions and thus professional advance, do they involve shifts from academic to non-academic careers [or vice versa], do they suggest translation of professional gentry to administrative sinecures?) when they send in these changes, this information might constitute newsworthy items for the columns of Plant Science Bulletin. The Editor agrees: think it over, put aside your natural modesty, and, when next you send in a notice of address change, state what it's all about.

NEWS FROM THE CANAL ZONE

Dr. James Zetek, Curator of Barro Colorado Island Biological Lab., retired from that post on May 31, 1956. Dr. Zetek, now 70, has spent 45 years engaged in biological research and administration in the tropics. He plans now to write the history of the Barro Colorado Lab. and his memoirs and to prepare a catalog of the land, fresh-water, and marine shells of Panama. Although he is an entomologist rather than a botanist, Dr. Zetek has been helpful to many botanists who have conducted investigations on Barro Colorado. These botanists are joined by the Editorial Board of PSB in wishing for Dr. Zetek good health and the energy for the completion of these important projects. Dr. Zetek writes, "I do not yet know what I shall do with my mollusk collection, nearly 7,000 species, 35,000 specimens, about half of these in duplicate for exchanges." Pass the word.

OLDEST LIVING THINGS

Pines more than 4000 years old have been discovered growing at timberline in the White Mts. in eastern California by Edward Schulman and C. W. Ferguson, Jr. of the Univ. of Arizona's Laboratory of Tree-Ring Research. These pines exceed the age of the oldest known Sequoias of California by approximately 1000 years.

NOTES ON XYLEM PHYSIOLOGY

Heard recently about a botany professor whose students christened his car "Xylem" because of the sap which travelled in it.

LOSS TO BOTANY?

A career pamphlet "Should You Be A Lawyer?" by Roscoe Pound as told to Donald Robinson and published by the New York Life Insurance Co., contains some material about the education of the famous former Dean of Harvard Law School. Writes Dean Pound: "When I was a senior at the University of Nebraska—that was quite awhile ago, in 1888, to be

exact—I started to think very seriously of botany as a career. The reason for this was simple. I was studying under an exceptional old professor of botany who had me all excited about his subject. Luckily, I asked my father what he thought of it. Father was a man of practical, good sense and he quickly convinced me that I was much better suited for law than for botany. I have felt deeply grateful to him ever since." (Reprinted through courtesy of New York Life Insurance Co.).

The "exceptional old professor of botany" was, of course, Charles E. Bessey.

Donald Rogers reports that Pound was a charter member of the Mycological Society, that he relinquished his membership in 1954.

LETTER TO THE EDITOR

(This letter, addressed to the Editor, has been circulated to members of the Editorial Board, who have indicated their approval of its publication.)

44 Pond Street
Jamaica Plain, Mass.
January 11, 1957

DEAR DR. FULLER:

As you and so many of your members knew my late husband, Dr. Elmer D. Merrill, who was for a great many years a member of your Society, you have probably noted the review of his life and work which appeared in the July, 1956, issue of the *Journal of the Arnold Arboretum*. This account omitted what seems to me a most important fact relating to his last years and without this fact I feel very strongly that the record is not complete.

The article dwells at length upon my husband's work as Director of the Arnold Arboretum between 1936 and 1946. It refers particularly to his part in drawing up preliminary plans for the policy which became known in due course as the Bailey Plan. This is quite correct as far as it goes, but the article omits to state that in 1946, on study of the plan as it had evolved, Dr. Merrill became convinced that the plan would be injurious to the Arboretum. Notwithstanding Dr. Merrill's opposition, the plan, as qualified by the Harvard Corporation in 1953, was applied to the Arnold Arboretum, resulting in the transfer of most of the Arboretum's library and herbarium from the traditional headquarters at Jamaica Plain to the Harvard University Herbarium Building in Cambridge.

It required, as you must understand, a great deal of courage for Dr. Merrill publicly to reverse his position and to come out against a policy of the University.

It seems proper, as I have pointed out, that the botanical world should know that from 1946 until the time of his death he opposed the above plan both privately and publicly.

I hope you will be good enough to publish this so that your members can know the facts.

Yours sincerely,
(signed) AUGUSTA S. MERRILL
(Mrs. Elmer D. Merrill)

RESEARCH ITEMS WANTED

William S. Hillman, Research Associate, Dept. of Botany, Yale Univ., New Haven, Conn., would like to receive live specimens of any native or exotic Lemnaceae (except *L. minor*), particularly *L. gibba*, *L. trisulca*, *L. valdiviana*, and *Wolfiella*.

NORTHEASTERN SECTION FORAY

The Northeastern Section will sponsor a field foray August 20-22, inclusive, with the Univ. of Maine, Orono, Maine, as headquarters. Trips will be taken to Mt. Katahdin, University forests, Jackson Labs. at Bar Harbor, and blueberry barrens. In addition, one or two evening meetings will be held. Inquiries should be directed soon to Jesse Livingston, Dept. of Botany, Univ. of Maine, chairman of local arrangements, or to T. T. Kozlowski, Dept. of Botany, Univ. of Mass., Amherst, Mass., secretary of the section.

9th PACIFIC SCIENCE CONGRESS

The 9th Pacific Science Congress of the Pacific Science Association will be held Nov. 18 - Dec. 9, 1957, under the auspices of His Majesty's Government of Thailand and the Science Society of Thailand on the campus of Chulalongkorn University, Bangkok. Organizing Chairmen of plant science sections are: M. C. Lakshanakara Kashem Santa (Botany Section), Ministry of Agriculture, Bangkok; Thiem Komkris (Forestry Section), Dept. of Forestry, Ministry of Agriculture, Bangkok; Insee Chandrastitya (Crop Improvement Section), National Development Co., Ltd., Bangkok. Chairmen of plant science standing committees are: F. Raymond Fosberg (Botany), Pacific Vegetation Project, National Res. Council, 2101 Constitution Ave., Washington 25, D. C.; G. S. Brown (Forest Resources), District Forest Office, Kuala Pilah, Negri Sembilan, Malaya; T. H. Shen (Crop Improvement), Joint Commission on Rural Reconstruction, Taipeh, Taiwan, Formosa. American botanists and other scientists interested in attending the Congress or in learning more about its program should communicate with Harold J. Coolidge, Pacific Science Board, Nat. Res. Council, 2100 Constitution Ave., Washington 25, D. C. NRC is the official representative of the U. S. in the Pacific Science Association. The 8th Pacific Science Congress was held in the Philippines in 1953, with 123 U. S. participants.

GENERAL SECTION ASSESSMENT

Members of the General Section of the Botanical Society are reminded that they voted a \$1.00 assessment for each member to defray the expenses of mimeographing abstracts. This is now due. Checks or money orders should be made payable to Barbara F. Palser, Secretary of the Section, and sent to her at the Department of Botany, University of Chicago, Chicago 37, Illinois. The few members who sent \$1.00 last year need not do so this year unless they so desire.

NEW BIOLOGY BUILDING

Construction of a new biology building has commenced at the Univ. of Illinois. The first wing will house the departments of bacteriology and physiology and the biology library; a wing to be erected later will house botany, entomology, and zoology.

CHANGE OF MANAGERS

William B. Drew, Mich. State Univ., has just completed his sentence as Business Manager of American Journal of Botany and now looks forward to peace, quiet, and the restoration of his shattered nerves. James E. Canright, Dept. of Botany, Indiana Univ., Bloomington, Indiana, has succeeded Drew as Bus. Mgr. of Amer. Jour. Bot. PSB expresses to Drew the gratitude of members of Bot. Soc. for his valuable services and to Canright applause for his bravery in taking over this time-demanding and exacting job upon which the success of our journal so largely depends.

IMPROVEMENT OF ADVANCED UNDERGRADUATE BIOLOGY COURSES

Many biologists have noted that college courses and textbooks often fail to keep pace with advances in their science. What causes concern is not that discoveries inevitably somewhat outdate any book before it can be printed, nor the omission of specific research results. Rather, what is serious is the inertia impeding the redirection of instruction in accord with fundamental changes in many fields during recent decades. Courses may also have inadequate regard for changing student needs; students must be prepared for the biology of 1970 and 1980, not that of 1900 or even 1950. Obviously, the complexity and amount of information in any field dictate severe selectivity in designing courses. It matters greatly how that selection is made if the student, in the limited compass of a course, is to be given a foundation that will serve well for the future. But tradition and the fact that a college professor may be asked to teach subjects in which he is not expert often lead to the persistence of more or less anachronistic patterns of teaching.

The Committee on Educational Policies of the Biology Council, Division of Biology and Agriculture, National Academy of Sciences-National Research Council, has proposed a method for meeting this situation. The plan can be applied to any field by any responsible and informed group. The Committee itself, aided by a grant from the National Science Foundation, will test the plan in two subjects. If trial indicates that the approach is sound, the Committee hopes that the demonstration will encourage professional societies and others concerned with particular subjects to sponsor similar studies.

Basically, the idea adapts the research conference technique to the development of courses, recognizing that, even in a limited field, one person's knowledge and wisdom rarely suffice. For a subject considered by those in the field to need scrutiny, an *ad hoc* panel would

be set up, composed of biologists who represent different facets of the discipline and whose competence in research, experience in teaching, and flexibility of thought are generally recognized. The panel would make a wholly fresh start in designing the course, putting present practices aside in so far as possible. It would first consider what function the course should serve, what understanding and information students who take the course—or might do so if it were properly developed—need. This question should not be interpreted as stressing applications alone; undergraduate courses should primarily contribute to the student's maturation as a biologist through emphasis on comprehension of principles. Keeping these objectives and the present state of our knowledge in mind, the panel would then define topics to be included and the place and weight assigned to each, noting what time-worn material may be eliminated, what sequential treatment will most effectively impart a coherent picture of the subject as an area of systematic knowledge and, especially, as a sphere for continuing inquiry. Through correspondence and meetings, the panel would exchange ideas and tentative outlines until it evolves an acceptable, fairly detailed program, perhaps with suggestions for variations. Finally, the panel would publish its report, exposing it to professional criticism and making it available for the guidance of teachers and authors. The panel would then disband, for the objective is not to replace one orthodoxy by another, but rather to initiate what should become a continuing process of periodic re-evaluation of courses.

The trial involves panels on Parasitism and Systematic Botany. After considering many suggestions from a variety of sources, including the American Society of Parasitologists and the American Society of Plant Taxonomists, panel members were selected by the Committee and appointed by the Chairman of the Division. The panels are now at work; reports due by June 30, 1957 will be published in journals or through the Academy-Research Council. Both panels will be glad to receive suggestions and ideas on the form and content of undergraduate courses in their subjects.

The *ad hoc* Panel on Systematic Botany Courses includes Lincoln Constance, Univ. of Calif. (Berkeley), Chairman; Harlan Lewis, Univ. of Calif. (Los Angeles); Reed Rollins, Harvard Univ.; Robert Thorne, State Univ. of Iowa; and Herbert Wagner, Univ. of Mich.

Members of the *ad hoc* Panel on Parasitism Courses are Clay G. Huff, Naval Med. Res. Institute, Chairman; L. O. Nolf, State Univ. of Iowa; Richard J. Porter, Univ. of Mich.; Clark P. Read, Johns Hopkins Univ.; A. Glenn Richards, Univ. of Minn.; A. J. Riker, Univ. of Wisc.; and Leslie A. Stauber, Rutgers Univ. (John A. Behnke, Chairman, Subcommittee on Instructional Materials and Publications Committee on Educational Policies, Nat. Acad. Sci.-Nat. Res. Council).

(*Editor's note:* the Editor would be pleased to have comments from members of Bot. Soc. on this proposal, since he plans to write an editorial on this subject for July 1957 PSB.)