Research Council is eager to improve the status of biological publication in America. Any suggestions which would help it in its work would be sincerely appreciated. These should be sent to the Chairman, L. V. Heilbrunn, Zoology Department, University of Pennsylvania, Philadelphia, Pa.

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THE WISTAR INSTITUTE—AMERICAN FILM CENTER MOTION PICTURE SURVEY

IN recent years the number of motion pictures in medicine and allied subjects has increased enormously. With this increase, however, has come a growing confusion throughout the whole field. Doctors wishing to arrange film programs have been at a loss where to go for information about pictures to fill their needs. The present-day catalogues are full of titles concerning the standard techniques in medicine and surgery, but generally there are no descriptions of the films. Each catalogue also fails in being a complete list on any one topic, because it attempts to include too many and random subjects. Thus the doctor has no means of discriminating between the various films listed.

It is a fact that scientific films are being used in teaching more each year, but that excellent ones are often buried in the mass of mediocre material that no advantage is derived from their existence. Appreciating this, The Wistar Institute of Anatomy and Biology, in collaboration with The American Film Center, made a survey of the pictures in its field. In addition, The Wistar Institute hoped to establish a library of the best productions and research films where they could be catalogued and made available for use. A questionnaire was sent accordingly in February, 1940, to members of The American Society of Zoologists and The American Society of Anatomists asking for information on motion pictures in colleges and medical schools.

The questionnaire was designed to cover three topics: the extent to which medical and biological films are now used, the sources of these films (or the details of their production where they were made on the spot), and whether copies would be made available for filing in The Wistar Institute Library. The results showed an overwhelming interest in the use of teaching pictures. Out of 638 replies, 432 men indicated that films were shown in their classes, and 25 others said there were plans for doing so once the facilities were available.

One hundred and sixteen out of the number using films had made their own, while the remainder had bought, borrowed or rented them, in about equal proportions. Where outside sources were called upon, there were listed the names of 57 different educational and non-commercial institutions, and 32 commercial groups, including drug-houses, insurance companies, etc. In considering production, the association's members had chosen 16mm film over 35mm by a ratio of 6:1, and one third of those undertaken were in color. While a small number of films were made for lay audiences, the majority were technical, and intended for students as well as other scientific groups. Quite naturally only a few were sound films.

With regard to submitting prints to a central library for filing and distribution there were varied and rather inconclusive answers, although 67 were favorable to such a plan. Distribution and financing problems must be solved before a general acceptance of the scheme will be possible.

The actual value of this survey lies, however, in the use which will be made of its findings. A file is now available, with copies in The Wistar Institute and The American Film Center, of the moving pictures actually used by anatomists and biologists throughout the country, with brief descriptions of the content in most cases. Likewise there is now a list of the sources of the greater number of these films. The Wistar Institute has already set up its reviewing service, whereby critiques of those films passed and reviewed by carefully chosen boards, representing the American Association of Anatomists, the American Society of Zoologists and the Wistar Institute, are printed in its journals. Slowly a library of the best research and teaching pictures is being collected, and distribution plans are to be worked out.

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INDUSTRIAL SOLVENTS AS POSSIBLE ETIOLOGIC AGENTS IN MYELOID METAPLASIA[1]

THERE has recently been described under the name of agnogenic myeloid metaplasia a syndrome which both from a clinical and hematologic point of view has been frequently confused with myelogenous leukemia, hemolytic jaundice or anemia.[2]

The term agnogenic implies that the etiology of the condition was then unknown. A comparison of the histologic findings in this condition with those found in chronic benzol poisoning[3] together with certain

[1] From the Collis P. Huntington Memorial Hospital, Mallory Institute of Pathology, Thorndike Memorial Laboratory, Second and Fourth Medical Services (Harvard), Boston City Hospital, and the Department of Medicine, Harvard Medical School, Boston.

[2] Henry Jackson, Jr., Frederic Parker, Jr., and Henry M. Lemon, *New England Jour. Med.*, 222: 985–994, 1940.

[3] Tracy B. Mallory, Edward A. Gall and William J. Brickley, *Jour. Indust. Hyg. and Toxicol.*, 21: 355–392, 1939.

clinical evidence led to an investigation of the occupational histories of the patients now in our clinic with myeloid metaplasia.

All the 6 available for study gave a history of exposure to certain industrial solvents including benzol and carbon tetrachloride. Case 1 worked for 5 years with benzol in a shoe factory. Case 2 cleaned mesh machines with benzol for half an hour a week for 16 years. Case 3 washed bearings in "high test gasoline" for 20 minutes 4 times a day for 26 years. Case 4 was exposed to the fumes of carbon tetrachloride for an hour each day for 8 years. Case 5 used large amounts of paint remover for 1½ hours a day for 15 years. Case 6 was exposed to a paint remover containing benzol intermittently for a period of many years.

These facts suggest that exposure in some individuals to certain fat solvents may result in the clinical picture previously described as agnogenic myeloid metaplasia. It is quite likely that some patients with this syndrome will give no history of such an exposure, and it is reasonably certain that many so exposed will escape unscathed.

Further work on this subject is being carried out.

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HENRY JACKSON, JR.

THE OPOSSUM, *DIDELPHIS VIRGINIANA* KERR, A NEW HOST FOR PARAGONIMUS IN TENNESSEE

IN the early fall, 1940, Mr. Malcolm V. Parker, a graduate student at Northwestern University, forwarded the writer a box of twelve mounted and a vial of eight preserved specimens of a lung fluke he had removed from the lungs of a single opossum, *Didelphis virginiana* Kerr, while in residence at the Reelfoot Lake Biological Station in Tennessee during the summer. The host was taken by Mr. John B. Calhoun, another graduate student at Northwestern University, while working on the food habits and distribution of mammals in the vicinity of Reelfoot Lake. Although several specimens of the opossum had been taken during the summer, not more than six of these hosts had been searched for their parasites. The writer spent six weeks at the station, but had opportunity to examine only three of the opossum hosts from the region. Only the single host harbored the lung fluke.

The fluke has been identified tentatively as *Paragonimus westermani* (Kerbert, 1878). Recognizing the uncertainty of the taxonomy of the members of the genus *Paragonimus,* the anatomy of the present form has been worked out in considerable details, and the writer is of the opinion that but one species exists. In so far as is known the opossum has not been reported heretofore as a host of *Paragonimus,* although, as pointed out by Hall,[1] much work has been done on this fluke by Japanese workers and it is just possible that the opossum host has been included. However, there is some evidence to indicate that the American opossum is refractive to an infection with this fluke. Ameel[2] found no infection in 109 of this host from an endemic area in Michigan and failed to produce an infection when the opossum was fed large numbers of viable cysts of *Paragonimus.* No infection has been found in over thirty opossums autopsied in Georgia.

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SCIENTIFIC BOOKS

CAMPBELL ON THE EVOLUTION OF THE LAND PLANTS

The Evolution of the Land Plants (Embryophyta). By DOUGLAS HOUGHTON CAMPBELL. 731 pp., 351 figs. Stanford University Press. 1940. $6.50.

THE book before us scarcely measures up to its title, "The Evolution of the Land Plants," or the promises of its Introduction. What it really turns out to be is a very valuable summary of the present state of knowledge of development from Bryophytes to Angiosperms. That this is extremely well done goes without saying to any one who knows anything of Campbell's own original work, especially on the Bryophytes. One looks in vain, however, for an equally comprehensive discussion of the various hypotheses of origins and relationships that have been put forward. The author is obviously aware of these, but there are no reasons given for his acceptance of one or rejection of another. When one has led such a long and fruitful life, as has the author, and has been so close to the firing line of his science, his friends and colleagues and those of the younger generation of botanists who come under his influence naturally expect, whether they have a right or not to such an expectation, that out of his experience and wisdom he will state why he *e.g.* accepts Wettstein's system and rejects that of Parkin and Arber regarding the evolution of the flowering plants.

That this is not merely carping criticism is, I think, shown by the feeling of approval which the reviewer would accord to Campbell's judgment in the cases mentioned. The book itself consists of twenty-seven chapters of which four are devoted to Bryophytes, eight to the Pteridophytes, as they are called in the text, but

[1] *Jour. Parasitol.,* 11: 227–228, 1925.
[2] *Am. Jour. Hyg.,* 19: 279–317, 1934.