recognition of genera. It is very inconvenient to students to find marked differences in the standard works of Jepson, Munz and Abrams, all dealing with the west coast flora. It should be possible to form a committee to reach a common agreement on these matters. There is no fixed rule for the recognition of a genus, and in many cases possible alternatives seem about equally permissible. Take, for instance, the genera of Cruciferae, and examine Jepson's key for their recognition. We find, for example:

Flowers yellow, or often white in Nos. 4 and 5 (four genera)
Flowers white or whitish (rarely yellowish) to purple or purplish (four genera)

or again:

Seeds in 1 row in each cell (except 2 species in No. 5 and several in No. 16 (nine genera)
Seeds 2 rows in each cell (2 genera)

These definitions well illustrate the difficulty of sharply limiting the genera, yet nearly all the genera cited are readily recognizable in the field by their "facies." Munz recognizes *Descurainia* (often called *Sophia*), which differs from *Sisymbrium* by the forked hairs, and by its characteristic appearance. Jepson merges it in *Sisymbrium,* which then becomes an assemblage of very different looking plants. I think it is a good genus, but that is more or less a matter of opinion.

Another obvious criticism has to do with the numerous "varieties" proposed or cited. Apparently the intention usually is to recognize such units as we term subspecies in zoology, but there is no doubt a mixture of forms due to the direct influence of the environment. The intergradation which leads botanists to reduce plants to varietal rank may be due to crossing. Botanists must not be blamed for this inexact treatment, since they usually lack the necessary information for more correct judgments. But each "variety" may be taken as a sort of challenge to the coming generation of workers to determine its real biological significance.

We miss, in all these botanical works, any reference to the animal life associated with the plants. It is singular that botanists rarely take the least interest in the insects which bring about the fertilization of the flowers, those which devour the various parts of the plant, or form galls. Every species of plant is a stage on which a drama of animal life is enacted, and some day, we may hope, this will be recognized and the facts properly described and illustrated. Here is a vast field for study, rich in opportunities for discovery.

T. D. A. COCKERELL

UNIVERSITY OF COLORADO

SPARGANA IN NATRIX

IN SCIENCE for January 29, Dr. L. J. Thomas reports the finding of spargana (larvae of the cestode genus Diphyllobothrium) in a Natrix taken near Ithaca, N. Y. These spargana had been collected by Mr. Elmer Brown, of Cornell University. The first instance of spargana in water snakes in this country to come to my attention was a case related to me verbally in December, 1936, by Dr. George R. La Rue, of the University of Michigan. In this instance the spargana were found in a water snake taken in the Okefinokee Swamp, Georgia. In neither of the above cases were the spargana fed to suitable definitive hosts to determine what species was represented.

I wish to report here the finding of spargana in Natrix from Florida. In February, 1937, two lots of Natrix, one from Sarasota, the other from Silver Springs, Florida, were examined for spargana, and found to be about 90 per cent. infected. The number per snake varied from one to seven. These spargana were in all respects similar to the larvae of *Diphyllobothrium mansonoides* Mueller, the only *Diphyllobothrium* known from this country which might be presumed to infect Natrix in the larval stage. The larvae in this case have been fed to numerous suitable definitive hosts, and it should therefore be possible shortly to determine the exact identity of this parasite.

I have previously reported, in a preliminary note on the life history of *D. mansonoides,* the failure to infect snakes with the sparganum of this parasite. However, in these experiments garter snakes were used instead of Natrix, it being supposed that the genus of snakes would make little difference in the outcome of experiments on a larva which has such a wide diversity of hosts as the sparganum of *D. mansonoides.* Probably this supposition was in error.

A very limited number of Natrix from the vicinity of Syracuse were examined for spargana during the summer of 1936, but were reported negative. In this connection it is of interest to note that Mr. Elmer Brown, finder of the spargana reported by Thomas, states in a personal letter: "Frankly, I am not optimistic over the prospect of the forms being found again very readily. I have dissected a good many snakes from this region, but I am reasonably certain that the specimen of last spring was the first I have opened which carried this genus." This is in conflict with the idea that this sparganum is the larva of *D. mansonoides,* since this parasite, in the adult stage, occurs very commonly in cats in this region, and therefore its larva should occur commonly in all potential hosts.

With experiments and further work now under way, it should be possible very shortly to clear up this puzzling and very interesting question.

NOTE: Since this article was first sent in to SCIENCE, the adult cestodes have been recovered from experimentally infected cats, and found to be of two different types, the one morphologically identical with *D. mansonoides,* the other resembling *D. mansoni* in general, but apparently differing from this species in certain important respects. In any case this is the first record of this second form for this country. It is clear therefore that Florida water snakes are infected with two different species of spargana. Further work on these forms will be reported elsewhere.

JUSTUS F. MUELLER
N. Y. STATE COLLEGE OF FORESTRY
SYRACUSE, N. Y.

PHOTOMICROGRAPHS AND MICROPHOTOGRAPHS

IN the March 5 issue of SCIENCE Professor Luyten made some interesting comments on scientific nomenclature, refers to the term "photomicrograph" as a "horrible hybrid" and expresses his preference for the term "microphotograph," which he recommends as the proper word. This was particularly interesting to me because at about 1912 I wrote numerous abstracts of German papers on the subject of "Metallography" and in these abstracts I repeatedly used the word "microphotograph," only to have the editor of *Chemical Abstracts* invariably change the word to "photomicrograph." At that time, I was rather peeved because I preferred the sound of the word that I used and it was a more literal translation of the German text which I was following. The learned editor of *Chemical Abstracts* carefully pointed out to me that the reader might imagine the word "microphotograph" to signify a very small photograph, whereas I meant the photograph of something that the naked eye could not perceive because the camera was placed over a microscope and the photograph, which was of perfectly normal size, represented a magnification of perhaps 500 diameters.

I have on my desk a 1937 edition of Webster's Collegiate Dictionary, and the term "microphotograph" and "photomicrograph" are both defined in the above sense, although under the former definition a secondary meaning is given as follows: "loosely a photomicrograph." The term "horrible hybrid" is usually applied to words derived from two languages. Thus the term "monovalent," which is often carelessly used by chemists, is frowned upon and it is considered better to use the term "univalent" because "valence" is derived from a Latin word and *uni* expresses in Latin the same idea that *mono* does in Greek. Since the three parts of "photomicrograph" are all derived from Greek words, the word can hardly be called a "horrible hybrid."

If Professor Luyten's communication had been written in 1912, I know I should have hailed it with joy, but I have learned a lot since then and have come to the conclusion that the editor who compelled me to use the term "photomicrograph" twenty-five years ago was wiser than I and did me a service in correcting my writings.

WILLIAM T. HALL
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

A MISLEADING ARTICLE IN THE AMERICAN MAGAZINE

IN the May, 1937, issue of *The American Magazine* appeared an article under the name of H. H. Nininger, curator of meteorites in the Colorado Museum of Natural History. This article, which was entitled "It Pays to Keep Your Eyes Open," was not written by Mr. Nininger, as the by-line implies, but by the writer of this statement. Mr. Nininger was responsible for only the portion of the article which deals with meteorites and fossils. The portion dealing with plants and Indian relics was appended by me, solely on my own responsibility.

The original version of the article, which was the only version approved by Mr. Nininger, contained almost no reference to plants or Indian relics. These references were added, without his knowledge, when the editor of *The American* requested me to "fatten" the article. Furthermore, the article was intended to appear "As told to Frank Clay Cross," not as Mr. Nininger's own work.

I have long enjoyed an intimate friendship with Mr. Nininger, and the fact that this article has caused him considerable embarrassment is a matter of great regret to me. If any reader has drawn the inference from it that he is, in any sense, interested in the commercialization of science, that inference is entirely unjustified. The whole blame must rest on me.

This statement is written entirely on my own volition to correct an unfortunate error, in so far as it is possible for me to correct it.

FRANK CLAY CROSS

QUOTATIONS

THE SOVIET POLAR EXPEDITION

THE landing of a Soviet plane at the North Pole and the setting up of the first permanent North Pole weather and scientific station is an achievement that is receiving the wide and enthusiastic acclaim it deserves. It was not of course a "discovery." Neither was it the