favored by conditions associated with intermediate temperatures. No species was found which preferred cold water, but several forms became active in water which had been ice not more than one hour previously. Most species observed showed a wide range of tolerance to changes in temperature as well as in all the other environmental factors which were studied.

Two fundamentally different sequences of protozoan forms were observed at the ends of piers extending into the lake. Here, the planktonic fauna was markedly different from the fauna on the piles of the piers, although no measurable differences in environmental factors could be found.

It is concluded that: (1) most free-living Protozoa show wide ranges of tolerance to individual environmental factors, a fact also shown by the data of Noland[2] and of Wang;[3] (2) most free-living Protozoa are affected by very slight changes in the physical and biotic conditions of the environment, in spite of the wide ranges of tolerances shown; (3) the sequence of protozoan species at any one place passes very quickly under natural conditions; (4) an abundance of food is very important for the distribution of most species of ciliates, as Noland[2] also found; it is also the major factor in the distribution of the saprozoic flagellates, but is not so necessary to other flagellated types, and it has not been shown to be important in the distribution of the amoeboid forms; (5) flagellates tend to react more directly to individual factors in the environment than do ciliates; amoeboid forms seem to be intermediate in this regard; (6) seasonal maxima in number of species occur approximately one month earlier in the spring and later in the fall in Oklahoma than is common farther north (see Wang[3]). This apparently shows that such maxima are controlled by climatic factors associated with the seasons.

A full report of this study will be published elsewhere.

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LEMNACEAE IN FLOWER

ON June 5, 1937, in a small pond north of St. Paul, Minnesota, *Lemna minor* L. was found in flower. About one thallus in ten had flowers. This colony continued to bloom for six weeks, the seed of the first flowers maturing about the time the last flowers appeared. Because of this find and the abundant rains in this area other *Lemnaceae* were watched and were found in flower as follows:

Spirodela polyrhiza (L.) Schleid. in three ponds near Lake Minnetonka, the earliest flowers appearing on July 2, 1937.

Lemna trisulca L. in a pond at Glenwood Park, Minneapolis, Minnesota, on July 10, 1937.

Lemna sp. in a small pool in a woodlands near Lake Minnetonka. The flowers were few, but germinating seeds and seedlings were found on July 27, 1937.

Wolffia punctata Griseb. with young flowers in a lake along the Minnesota river bottom on July 26, 1937.

Wolffia columbiana Karst. was found associated with *Wolffia punctata* and about as abundant; however, very few of the plants of this species were in flower on July 26. A few days later both species of *Wolffia* were found in flower in the Lake Minnetonka region.

This is the first report of *Wolffia* in flower in the state of Minnesota and may be the first report of this matter for the United States. Material of all these *Lemnaceae* is being collected with the intention of making morphological and cytological studies.

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GROWTH IN THE ADULT

SINCE the publication of my study on "Growth During Adult Life,"[1] a number of unexpected letters have reached me with reports of individual experiences in this line. Some of these reports are so interesting and bring to light such curious and novel conditions that I should be thankful for more records of similar nature, particularly by scientific men who are used to precise observation. I therefore appeal to all who in themselves or among their relatives or friends have observed or come to know of accretive normal growth changes in the body or any of its parts during the adult life, to inform me of same. What is desired are as far as possible rigidly accurate data and details, which could reliably be used for further elucidation of the process of normal growth during the adult stage of life.

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THE STATEMENT OF THE RUSSIAN PROFESSORS

THE statement recently reprinted in SCIENCE and said to have been signed by many professors of the Russian Academy, may, I think, do injustice to these men. A friend of mine, who not very long ago held a temporary academic position in another European country, was confronted by a document strongly endorsing the policies of that country, intended to be sent to the American press, and requiring only his signature. This he refused to supply, and for a time the resulting situation was annoying and even alarming. Being a distinguished American, he was able to

[2] L. E. Noland, *Ecology*, 6: 437, 1925.
[3] Chia Chi Wang, *Jour. Morph.*, 46: 431, 1928.

[1] Proc. Amer. Philos. Soc., 1936, LXXVI, 847–897.

maintain his position without any serious consequences, but had he been a citizen of the country, one can readily imagine what might have happened.

Now I am quite sure that none of the Russian scientific men have any interest in promoting plots alleged to have originated with Trotsky, but on the other hand, they would not willingly sign such an intemperate and ill-considered paper as that reprinted in SCIENCE. I infer that they signed under compulsion, or possibly that their names were appended without their consent. The paper should not be taken too seriously. The use of intemperate language is not confined to Russia; there are people in all countries who imagine that a grossly exaggerated and distorted statement will be more convincing than a fair presentation of the facts.

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SOCIETIES AND MEETINGS

SUMMER BOTANICAL MEETINGS

THE first of the joint summer meetings of the Botanical Society of America and the American Society of Plant Taxonomists was held at Acadia University, Wolfville, N. S., from August 18 to 20. Sixty-one members of the societies and guests were registered. The meetings were begun by a formal program in the Biology Building of the university on the evening of August 18, Dr. L. C. Petry, vice-president of the Botanical Society of America, presiding. Addresses were as follows: President F. W. Patterson, of Acadia University; the Honorable John A. McDonald, minister of agriculture of the provincial government; Professor Edmund W. Sinnott, president of the Botanical Society of America, and Dr. H. A. Gleason, president of the American Society of Plant Taxonomists.

After inspection of the botanical laboratories on Thursday morning, the Dominion Experimental Station at Kentville was visited under the guidance of Director W. S. Blair. A picnic lunch was served on the station grounds, and the party returned to Wolfville to study the dike lands adjacent to the Minas Basin shore. Particular attention was given to an area about which the dike has broken and in which typical salt marsh vegetation is rapidly being reestablished. This was followed by a visit to the sunken forest northeast of Grand Pré, where firmly rooted stumps are abundant on the tide flats at various levels down to 35 feet below high-tide line.

On Friday the party visited the barrens near Auburn and an extensive raised bog near Aylesford. From that point the route of the party lay through the finest section of the Cornwallis Valley apple district and over North Mountain to Hall's Harbor on the Bay of Fundy. After lunch there, the marine algae of the tide pools were studied under the guidance of Dr. Hugh Bell. Some members of the party then returned to Wolfville and spent the remainder of the day collecting fossil plants of lower Carboniferous age at Horton Bluff. The remainder collected seaside plants along the shore at Hall's Harbor and visited a quaking bog at the foot of North Mountain. No trips were scheduled for Saturday.

The local committee in charge of arrangements consisted of Mr. A. E. Roland, Dr. J. F. Hockey and Professors H. C. Perry, J. M. Bayne and Muriel V. Roscoe (*chairman*). The arrangements were well planned and all trips well managed.

The second joint field meeting was held at the Biological Station of the University of Michigan, Douglas Lake, Mich., from August 24 to 27. Registrations numbered thirty-one, but the attendance was much greater, due to the participation by various staff members and graduate students of the station and guests of members. A local committee, consisting of Professors John H. Ehlers (*chairman*), Frank C. Gates, Carl D. LaRue and George E. Nichols, was in charge of the field trips and camp routine. Tuesday afternoon was occupied with a boat trip on Douglas Lake, followed by a trip of inspection of the numerous laboratories. In the evening, Dr. George R. LaRue, director of the station, officially welcomed the group. Responses were made by Dr. H. A. Gleason and Dr. Karl M. Wiegand, representing the Botanical Society of America. The evening was concluded with an illustrated lecture on "The Biological Station and its Environs" by Dr. George R. LaRue. Wednesday trips were made to the shore of Lake Huron, the Straits of Mackinac, Cecil Bay and Wilderness State Park. On Wednesday evening, Professor W. F. Ramsdell, of the School of Forestry and Conservation of the University of Michigan, addressed the group on "Land Utilization Research." Thursday was devoted to visits to bogs and marshes in the vicinity of Little Lake Sixteen, containing a highly sequestered and essentially undisturbed flora of great diversification. The address of the evening, by Mrs. Ynes Mexia, was entitled "Three Thousand Miles up the Amazon." On Friday morning the meetings were concluded with a trip to the jack-pine plains region.

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Secretary, The Botanical Society of America
LOREN C. PETRY
EARL E. SHERFF