

principles drawn up, a good deal of enthusiasm was exhibited. Now the organization is strong enough to begin to make those principles functionable.

There is still a lot of "missionary" work to be done; the brunt of the effort has, in the past, been borne by a relatively few of the membership. Now, if we are going to continue to grow and to increase our effectiveness, new loyalties on the part of teachers everywhere must develop; this must be so if the good of the organization is to reach all who teach biology. Many in smaller schools, where the problems mentioned earlier are most pressing, have not yet made the contact with the parent group. If individual members will form locals and do the "missionary" work, help get the NATIONAL ASSOCIATION into touch with local problems, bring the non-biologist teacher of biology to meetings, and advertise THE NATIONAL ASSOCIATION OF BIOLOGY TEACHERS, then greater benefits will result for every individual teacher.

Here is how some of these benefits occur: First, in the problem of materials, someone in the ASSOCIATION has the answer to your problem, and you can help someone else.

Second, in November, 1943, a committee was selected and charged with the duty of collecting the activities of members and of local groups for the purpose of dissemination and permanent record. Not a great deal has been accomplished, but some have responded by sending in ideas and records.

In the third place, if membership in the NATIONAL ASSOCIATION becomes large enough we should have sufficient means to pay a clerk to keep a file of materials which would be available to all. Also, we hope that in time it will be possible to extend financial aid to locals, or even to individual members for certain projects.

Next, comes a suggestion from several members, via Dr. Jeffers and Mr. Russell, that we should maintain a placement service; this is one of the most practical suggestions of all, and will be possible if and when enough contacts are made.

We could go on and name many other ways in which the aim stated at the start of this article will be realized, but the imagination of the reader can grasp the possibilities. I am optimistic that we shall develop and be able to offer greater service, when I think of the splendid efforts of so many in the past and when I discover the new loyalties that are awakening.

PREVO L. WHITAKER,  
*President-Elect*

### THE DIRECTION OF BIOLOGY TEACHING IN CLEVELAND\*

Mr. Chairman and Fellow Biology Teachers: I wish to convey to you greetings from the Biology Teachers of Cleveland and especially from those who belong to the Greater Cleveland Biology Club. In September *The National Association of Biology Teachers* will hold a meeting in Cleveland, and we will be glad to welcome all of you to our city.

Now to the subject upon which I am to speak, "The Direction of Biology Teaching in Cleveland." By way of background it is well to know that in Cleveland biology is a five period per week subject and a tenth grade subject, and that fact colors somewhat our procedures. Another local characteristic is that each of the fourteen senior high schools, 10th to 12th grades, are individualistic. Each is set up without any uni-

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form method of procedure in administration, with the result that a teacher transferred from one school to another in Cleveland feels as though moved to a different city. This has its bearing on all teaching procedures and hence there is no general agreement as to what should be taught in high school biology or how long should be spent on a given topic. All this in spite of a city course of study and some carefully prepared syllabi in certain biology topics from the former curriculum center. In one item there is uniformity in that all schools use the same textbook, Baker and Mills, *Dynamic Biology*, the new edition. Available for all our high schools is the Cleveland Museum of Natural History and the Cleveland Health Museum.

Cleveland, it appears, is committed to separate subjects in high school. There is no movement toward integration of subject matter fields in the high schools at the present time, even in science. True, we do have what we call "Senior Science," or high school physical science. But nowhere has it been suggested that biology topics be included and so make a course in high school science. In most Cleveland high schools it is felt that senior science is for those who find physics or chemistry too difficult.

Peculiarly, while each high school goes its way more or less independently as to what other schools are doing, there is in certain schools quite a bit of stereotyped biology teaching. By this I mean the lesson assignments, tests, and teaching aids are rigidly laid out by the department and all teachers follow the same schedule. In other schools, each teacher does the planning and all those things connected with the teaching procedure, even to the extent of giving no department tests. There are at present no city wide tests given in biology.

There is a strong tendency to do away with laboratory work and field work be-

cause of time limitations, because excessive use of the microscope is wasteful of pupil time, because dissection is loaded with too much technical detail, and because the conducting of field trips on city streets or to distant parks is, also, wasteful of pupil time. To take the place of laboratory work, demonstrations are used, but in some places this even is lacking in part, so that there is almost a book course, supplemented with pupils reports on various topics.

Another tendency in our teaching is one that the present war has brought to the front, the making of our biology course one in Health only, with First Aid thrown in. One of the directives given Cleveland biology teachers in 1942 by the science supervisor told us to sacrifice any biology topic we wished in order to get time to emphasize health materials. In some schools five or six weeks were taken from biology to teach the Red Cross course in First Aid. As biology teachers, should we see that these topics be put in a place by themselves and called by their right names?

In Cleveland high schools extensive use is made of classroom movies. This is due to our Educational Museum, that buys films for use in all schools; also, we can get these films on order. All that is desired is not attained by this scheme, but we do get biology films. Hence, it is so easy to let the films take the place of laboratory work and even demonstration materials. The future probably will bring no curtailment in this teaching aid.

In all Cleveland high schools classrooms are equipped with radio. There is a growing movement to broadcast from our school station, WBOE, more science programs. The past two years this has been confined to science dealing with aviation or with the war. This material was used mainly by physics, chemistry, and senior science classes. In the future there is no doubt that this will be ex-

panded to include more biology. Last year there were some rebroadcasting of the University of Chicago science programs. Some biology teachers used the series of talks on *The Doctor and Health* set up for junior high school science classes.

The War has caused, during the past two years, an upward extension of the school garden program from the grade and junior high schools into the senior high schools of Cleveland. These are individual gardens, usually according to a set plan, with supplies furnished at cost by the garden department of the school system, although a pupil may plan his own garden and get his supplies elsewhere. These gardens are visited and the pupil advised regarding his garden twice during the summer months, once at the close of school in June, and again in August. For high school students having gardens this visiting has usually been performed by a biology teacher. Gardening gives many city students their only contact with living plants and the care required to have them grow successfully.

Now, while we are becoming less scientific in our biology teaching, the paradoxical thing is that we are to teach the scientific method, or as some call it, critical thinking, as something that will be useful in any walk of life our students will follow when school days are over. Several directives on this subject have been given Cleveland science teachers, both from the science supervisor and from a former assistant superintendent in charge of the senior high schools.

These, then, are some of the tendencies that appear on the horizon as to the way biology is going in Cleveland. How long these tendencies will remain, time alone, can tell.

VINCENT R. PETERSON,  
*Glenville High School,*  
*Cleveland, Ohio.*

## WALKER PRIZES IN NATURAL HISTORY

### FOR ESSAYS ON MAMMALS

Two prizes, founded by the late Dr. William Johnson Walker, are offered annually by the *Boston Society of Natural History* for the two most acceptable papers written in the English language, on a subject chosen by the Board of Trustees of the *Society*.

**PRIZES:** A prize of sixty dollars may be awarded to the author of the best essay. This award may be increased to one hundred dollars, at the discretion of the judges of the contest, in the case of a paper of exceptional merit. A second prize of fifty dollars will be given only if the next best paper seems worthy of the distinction. No prize will be awarded unless the papers submitted are deemed worthy by the judges.

**ELIGIBILITY:** The competition for these prizes is not in any way restricted.

**SUBJECT MATTER:** Each paper must be the result of original and unpublished research personally conducted by the author and accompanied by an accurate bibliography and a review of general literature on the subject. All papers must be typewritten and in complete form for publication. Other things being equal, preference may be given papers showing evidence of preparation especially for this competition.

**AUTHORSHIP:** Each paper must be anonymous. It must bear a pseudonym placed in a conspicuous place on the first page. A sealed envelope, also inscribed with this pseudonym, must accompany the manuscript. The contents of this envelope will divulge the identity and address of the author. Anything in the essay which shall furnish proof of the identity of the author shall be considered as debarring the paper from competition.

**CLOSING DATE:** All competitors must submit their work to the Acting Secretary, *Boston Society of Natural History*, 234 Berkeley Street, Boston, Massachusetts, before May 1, 1945.

The *Society* and the judges assume no responsibility for publication of the winning papers. However, it is understood that authors should not publish their papers until after the announcement of the prize awards at the Annual Meeting of the *Society* in October, 1945.

MARGARET BAKER,  
*Acting Secretary*