

BIOLOGY AS AN ADDED INTEREST IN LIFE.*

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Lecky, in his "Map of Life," makes this statement: "It is one of the laws of our being that by seeking interests rather than by seeking pleasures we can best encounter the gloom of life." It is the idea that biology may become, if properly taught, an added interest in life, and the ways in which we can so teach it is what I wish to present briefly to you tonight.

The studies of our high school courses may be roughly divided into two classes—those which are usually and properly dropped at the close of the school or college course, under ordinary conditions, and those which can be pursued throughout-life with pleasure as well as intellectual gain.

In the first class belong the mathematical studies, formal language study and the greater part of physical science. Among the latter are music, literature, history, and, last but not least, biology in the form commonly known as "nature study."

I can readily recall the time when the study of English meant rhetoric and grammar, with a study of brief sketches of the lives of some prominent authors for a finishing touch. The study of English literature in the sense of familiarizing the student with what was noblest and best in the literature of the language was scarcely thought of by the great majority of teachers. Happily that is changing, and it is readily granted that the best teacher of English is he who trains the student not only to use his mother tongue with accuracy and grace, but also to appreciate and love the best that has been written. The solace and comfort, the uplifting and cultivating effect of the love of good reading has long been recognized, much longer than it has been recognized that one of the teacher's chief duties is to develop that love.

A similar change is coming over our ideas of science teaching, and it is coming to be recognized that while the study of

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animate nature is invaluable in training the powers of observation and inductive reasoning, and that the study of some topic like physiology is essential for the highest physical welfare, yet if all this be done and be the end, the teacher's task is poorly performed. The facts we can teach are but few, the training in observation and reasoning is all too brief, but if the student be left with the power and the desire to know more, then all the benefits of our work will be increased a thousand-fold by being continued throughout life. Anxiety and *ennui* are the Scylla and Charybdis of human life, but the love of nature will enable one to steer clear of both. What more refreshing to the weary, anxious worker than days at the seashore or in the mountains if he can but forget his troubles and his anxieties? If he can not forget, illness, insanity or death await. What so sure, so speedy and so delightful a manner of forgetting as to fill one's eye and mind with the beauties and secrets of nature? The mind at such times is like a vessel filled with poisonous gasses that can only be emptied out by filling with the healing liquid of entertaining and engrossing pursuits.

The study of nature is a still more effective prevention and remedy for *ennui*; one can never exhaust the secrets and surprises of organic life; there are enough problems in a single insect or plant to occupy an active mind for a lifetime.

The increasing numbers in our large cities who seek relief from care or *ennui* in the saloon, in the poolroom, at the race-track and in sensual indulgence have aroused the solicitude of our most thoughtful men. If the science teacher can help his pupils to a state of mind where saner methods of recreation and entertainment shall be appreciated and indulged in, he will have done society an immense service.

The evils of a misdirected search for mental relief are not confined to the city. For "bridge" the country woman substitutes gossip; for the saloon there is the village loafing place, with its foul air and fouler speech; there is also the unbearable loneliness of the isolated farmer's wife, so strongly affecting the mind as to produce a characteristic type of insanity.

Books, art, music these may not be accessible, but all around the country home is an unknown world, filled with beauty and charming surprises, but which is rarely revealed except the revelation be begun in youth. The teacher is often the only one who can make the revelation, and though the study of nature can furnish the same training given by other studies, I submit that its chief object should be to add that to life which it alone can give and which other subjects can not impart.

How can you make your pupils love Nature? Love her yourself. Search out her hidden processes, her secret ways. If you know only what is in the book your pupil will never desire to know more. If you become an investigator you will become an enthusiast. Without enthusiasm one can not teach biology so as to make it a new interest in life.

There have been in the past a number of enthusiasts with little knowledge that have almost brought enthusiasm into disrepute. The enthusiasm that I plead for is the enthusiasm to know more, and if this be present the lack of knowledge will take care of itself.

The student trained under such a teacher may not be a walking cyclopedia of facts or a dictionary of technical scientific terms, but he will be one with trained eye and alert mind, obeying the mandate of the poet to "go forth under the open sky and list to Nature's teaching."