

## OUTLOOK FOR YOUNG MEN IN ZOOLOGY

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In the ten minutes allotted, I shall attempt to answer six questions of special interest to those who are planning to enter zoology as a profession. Through the kindness of Professors Mark, Minot, Comstock, Sedgwick, Reighard, Lillie, Conklin, Ward and Jennings, who have generously responded to my appeal for information, I am in a position to state the outlook for young men somewhat from the standpoint of their experience. As far as possible, the answers to the questions relating to the topic assigned me will be given in the words of the above-named zoologists.

1. *How do the chances for getting good positions compare with those of a decade ago?*

All of the zoologists who have expressed an opinion on this question agree that the chances are much better than they were a decade ago. Professor Comstock writes: "I should say that they are much better. It is only fair to emphasize, however, that the man who takes up work along these lines purely as a financial venture, apart from other considerations, will be disappointed. And I should say also that a large part of the demand for entomologists in recent years has been due largely to the great increase of this kind of work in the Department of Agriculture at Washington. Many men have found places with Dr. Howard or have taken places vacated by others who have

gone to Dr. Howard. If the government support of this kind of work were to cease it would make a great difference in the chances for getting good positions."

Dr. Mark writes: "Have been surprised that the demand has increased so rapidly. This has been more noticeable in the field of comparative anatomy than in other lines during the past five or ten years."

According to Dr. Minot, "There is great difficulty in getting any men for positions in anatomical and zoological laboratories, and I believe that for a few years the opportunities will be unusually good. But for heaven's sake, do not encourage any mediocrities to go into science. If you can, have them Oslerized at sixteen."

Dr. Conklin thinks that the chances of a young man's going at once from his graduation to the headship of a department are probably not so great now "as they were a decade ago."

Dr. Jennings says that "it is difficult to get the men needed for positions in zoology, and this is true all along the line from assistantships up to full professorships."

*2. Is it ever necessary for a man with a doctor's degree to rest on his oars for a year because no desirable college or university position is open to him?*

The reply of Dr. Lillie is typical of the answers given to this question: "In the course of a good many years several of our doctors of philosophy have accepted positions in high schools and normal schools; in such cases it has usually been a matter of preference with them. So far as I know, there has never been a case of one of our doctors of philosophy being obliged to go without a position for even a year."

According to Dr. Jennings, "many excellent positions have gone to men without the doctorate."

3. *Does the number of desirable positions equal the number of candidates?*

Dean Ward writes that "there have been more desirable positions in zoology which have come to my attention in the last five years than I could have filled times over if every one of my advanced students had been ready to consider such opportunities. We have not been able to furnish enough teachers to supply the college demand, nor enough collectors and workers for museum and government positions. The expansion in connection with college teaching, the demand for more men in old institutions and for new men in those recently founded has exceeded the supply."

Dr. Reighard writes that in his department "the number of applications for candidates to fill positions in biology and zoology has for some years fallen far short of the supply. I have had about ten applications for the present year and have been able to fill *none* of them with men directly from my laboratory. Two were, however, filled with men who have recently been here. These were applications for *men* and for positions above secondary-school grade."

4. *Has the number of men entering zoology as a profession increased or decreased?*

"There certainly has been no increase in proportion to demand," says Dr. Jennings. Dr. Reighard, however, writes that "the number of students in advanced classes with the definite purpose of preparing to teach in institutions above secondary-school rank, is *less*."

5. *Are any new fields opening up for zoological students?*

According to Dr. Sedgwick "The demand for men in physiology and sanitary biology is particularly brisk, especially in the latter subject. For several years it has been impossible to meet

the demands for young men properly equipped to fill positions in sanitary or industrial biology."

Dr. Reighard writes that "to a certain extent new fields are opening up: (a) I have had two applications within a month for men to fill positions in experimental research work, particularly breeding experiments, in agricultural colleges, under the Adams act. (b) There is a slowly increasing demand for men to undertake museum work. We have difficulty in keeping good museum men here. (c) Some of the older educational institutions are reorganizing their zoological departments and expanding them. (d) The normal schools are seeking men (and women) with the newer, ecological training, capable of organizing work along 'nature study' lines. I have had a couple of calls of this sort within a few months."

According to Dr. Jennings, "Some new fields are opening for zoological students. The various research institutions recently established take a number. The Adams act recently enacted by Congress promises to call a number into the service of state experiment stations, and has begun to do so already. I should judge that many more educational institutions require competent men in this line, or a greater number of them, than was the case a few years ago. On the whole, I should say that the prospects are excellent in zoology at present, particularly for the investigator."

6. *Is the demand for zoologists likely to continue as great as at present?*

There seems to be good reason to believe that the conditions which have kept up the demand for the past decade will continue in the next. Even financial depression such as that of the present time does not seem to diminish the number of students in higher institutions of learning. The policy of the General Education Board and of the Carnegie foundation will tend not

only to open up new positions for younger men, but also to make college and university positions more attractive.

From such considerations, we need not hesitate to encourage the exceptional man whose tastes lead him in that direction to enter zoology as a profession, with the well-grounded hope of attaining such a position as his talents deserve.