in Montana." The writer of the paper in question is an ornithologist of recognized ability who should stand for the conservation of bird life, but by his own story he worked for two weeks systematically and energetically, and the result was a small amount of the life history of a species that is rarely found breeding within the limits of the United States, and the collecting of probably every egg that was laid by the small colony of five pairs of grebes that had selected Swan Lake for a home. Twenty-eight eggs taken, some of them almost on the point of hatching, and for what,—that they might be measured to see if there was a fraction of an inch difference in the length or breadth of the empty shell, or to note if there was a slight variation in the shade of ground color. Could this not have been done without the sacrifice of twenty-eight young birds, and the consequent distress of the parents?

In my efforts for better bird protection I am often confronted with the statement that much useless and unnecessary collecting is done in the name of science. No one can have a higher appreciation of real scientific work than I accord to it, but the taking of every egg, of a rare breeder, in a small colony, is in no sense scientific, but on the other hand, it is wasteful and reprehensible. One typical set taken in 1902 would have been ample to establish the fact that the Holbell grebe breeds in Montana. It would have been much more scientific to have spent the two weeks in obtaining some insight into the life history of this species; i. e., method of nest building, care of young, food habits, etc. These would have been valuable facts that would interest every other bird student in the country. The twenty-eight empty shells now represent only a devastated bird colony and a story of cruel wrong.

Very truly yours,

WM. DUTCHER.

New York, Jan. 5, 1903.

An Answer

EDITOR OF THE CONDOR:

The limit of temperate collecting has ever been a mooted question, and like many other phases of ornithology, it is likely that the subject will always be open for discussion. As my position on this question has been criticized, I shall try to define my ideas on the ethics of collecting, and to explain the circumstances regarding the particular instance in which I am brought to task.

In a collection of natural history specimens, open to examination and usable by competent persons, the material will conserve to the pleasure and gratification of more people than it will in its native condition of life and surroundings. To support this statement, I bring forward the note in the issue of Science for Jan. 23, 1903, page 159, saying that seven hundred thousand people had visited the New York Zoological Park last year, and that the aquarium is visited daily by fully five thousand persons. True, the Park contains living animals, but the principle holds true in collections of whatever nature. For one person who can get out into contact with nature, there are hundreds who must be content with seeing things in cabinets and collections. In the ordinary conditions of life, the number of people who come into actual touch with nature is few indeed; a short walk on Sunday afternoon, a glimpse of some bird by the roadside, or a peep into a nest in some dooryard, is all that such people get out of the vast wealth of environ-The majority of people are pleased with collections that bring the wildwood material to them, for then they see things that otherwise would never come under their observation. Say what we please, there is a place, and a very large place, for natural history collections, even of skins and eggs of birds, as a means of gratification for this large class of persons whom I have mentioned.

It is the mission of lower animal life to minister to the gratification of the higher. This law of nature is annunciated in the Great Book, and has ever been the basis of man's dealings with the inferior creatures. It is my creed that if a set of eggs can minister to the pleasure of any number of observers, there is no question of the collector's right; furthermore, if seven sets of eggs of any one species can serve a purpose in bringing other sets, difficult of access, into one's cabinet by way of legitimate exchange, again the collector's right is beyond moral question.

The purpose of bird protection, as I understand it, is the conservation of bird life for the end I have mentioned, the pleasure and gratification of those who can come into contact with nature in her wildwood home. Of course, there are economical and other arguments for bird protection, but beneath them all lie the idea that the birds are living creatures, having many faculties allied to the human, and that all life is sacred. But let us not sacrifice sense to sentiment, for all lower life is but a part of the great domain of environment, which is to react on the human mind and soul, and develop all our noblest faculties.

If the foregoing be true, the great test of the moral right of the collector is the proper use

of his material. If a systematist can take a series of skins, and use them to the development of an instinct or faculty which is divinely given, who has a right to question the morality of the action? If in my collecting I find a place for seven sets of eggs of the Holbæll grebe, who shall say that my work was wasteful and reprehensible, provided the material is usable? What constitutes wasteful collecting? Clearly, the taking of specimens that are unavailable, not usable, or unnecessary to the advancement of human pleasure or knowledge. Let us see whether the taking of the seven sets of grebe's eggs was really wasteful.

The collecting criticized was done under the direction of the University of Montana Biological Station. It is the desire of the director of that work to build up a museum for the University that will be a credit to such an institution; in other words, to form such collections of biological material as will serve the best purposes of collections at an educational center. During the past three summers my time has been given gratuitously to this end. While I have been left largely to my own plans of work, and therefore am ready to bear all censure for my actions, it has been the wish of the director that I collect largely, obtaining even more than duplicates of skins and sets, that the museum might have exchange material with which to increase its small collections. In this way about four hundred skins, and possibly seventy-five sets of eggs have been added to the museum. These eggs are the only ones in the museum.

Now seven sets of eggs of this grebe, nesting in limited numbers in the state, will give the University five or six sets to exchange. That the exchange can be made, is shown by the fact that applications have already been made to me for all the eggs, which are still in my hands and will be disposed of to the best interests of the University museum. Two sets at least should be in the University collection. The remaining sets represent value to the museum, will fall into the hands of appreciative collectors, will enhance the value of other collections, and will consequently serve the purpose for which all collections should be made and for which lower animal life was created

Why take all the sets of eggs of this grebe that were to be obtained on this occasion? Why not take one typical set, as my friend suggests, and leave the remainder to the course of nature? Because of the very reason he mentions, its rarity in nesting within our borders. It is doubtful that I shall ever again have opportunity of taking eggs of this species, should it be necessary; and when opportunity presents itself but once in a life-time, is the collector reprehensible for taking seven sets of eggs of a rare breeder? Is he any more reprehensible than if he should take a set each year for seven years, should the opportunity successively present itself?

Furthermore, anyone who is familiar with the habits of the swamp-breeding birds knows the uncertainty of finding the birds in the same locality in succeeding seasons. Those who have visited the extensive Dakota marshes in successive seasons testify to the fact that where hundreds of the birds were breeding one year, not a bird could be found the next. Now when a colony of grebes is found, and there is need of taking the products of the colony, the collector would be very unwise to neglect the offered opportunity, for it is not likely to be repeated another season.

This grebe colony was found on a lonely lake, almost inaccessible to ordinary observers. It is more than likely that the bird life of the region will only serve the purpose of the enthusiastic collector and hunter, at least for years to come. The eggs of the birds there breeding are far beyond the reach of all except the few; why should not one season's product be brought and placed in collections where it will best serve the purpose of human study and observation?

There is a great deal of sentiment regarding the destruction of life by the egg-collector (scientific, of course). Much of this talk is mere bosh. It does not seem difficult to show that the taking of eggs as it is done by the real ornithologist has very little effect on the decrease of bird life. In fact, I am inclined to believe that the taking of the twenty-eight eggs in this grebe colony will have very little effect upon the aggregate bird life of the region. Two second sets were taken, and it is unlikely that the owners of these eggs would nest again. The others were first sets, and it is probable that the owners would nest immediately, as conditions there remained unchanged when I left on the 20th of June. My observations elsewhere show that grebes are not loath to nesting late into July. If the birds had not been molested, each pair would likely have reared its brood. What difference can it make in the end whether the brood comes from a first or a second set? Candidly, I fail to see in this collecting the sacrifice of twenty-eight young birds, nor can I admit that the twenty-eight shells represent only a devastated bird colony and a story of cruel wrong.

We are human, and are therefore liable to err. If I have erred on the side of intemperate collecting, I am ready to acknowledge my fault, and I shall ever thank my friend for calling attention to my error. If the foregoing explanation is not satisfactory, let me offer in further extenuation the plea of our master in ornithology, Dr. Elliott Coues, that of "worthiness of motive," and let the fault be covered by the broad mantle of charity.

motive," and let the fault be covered by the broad mantle of charity.

Respectfully,

P. M. SILLOWAY.