BIRD PHOTOGRAPHY

Conducted by Alfred M. Bailey

[Editor's Note. We are proposing to have from time to time a department on bird photography, and Mr. A. M. Bailey, Director of the Chicago Academy of Sciences, has consented to take charge of it. Mr. Bailey has had very much field experience in the Rocky Mountain region, in Alaska, and along the Gulf Coast. We hope to make the department a useful medium of exchange of ideas and experiences in matters of equipment, methods, subjects, results, etc. The instalment in this issue is elementary, and intended for beginners; later on, there should be plenty of material of interest to more experienced bird photographers. The frequency and success of this department will depend entirely upon the response of our readers. It is not intended that the Editor must furnish all of the copy. We invite our readers to submit their ideas of various outfits, their successes and failures with certain equipment, their special knowledge of unusual opportunities for bird photography, etc. Photographs which illustrate any of these things are also desired, and will be published in limited numbers.]

Bird students have many fields of investigation before them. Some work out the geographic boundaries of the different species, some the economic importance of birds in their relation to man, and others study birds merely for the enjoyment of being afield where they may, for the time being, be away from the crowds of the cities. Louis Fuertes once told me that the real reason he enjoyed being with birds was because he liked to paint them. Nagozruk, the eskimo collector of the Chicago Academy of Sciences at Cape Prince of Wales, said that he liked birds because he soon got tired of walrus meat! And so, the most of us have some particular reason why we are interested in bird life, and many have hobbies we like to ride. I think I receive more real enjoyment in trying to secure pictures of birds than in any other out-door study, and it is my desire to give the general methods employed, that others, if they wish, may also have the pleasure of watching birds from a blind and photographing them as they return to their nests.

The following notes are intended for nature lovers who have not attempted to picture birds, or for those who have had poor success, and are not meant for field men experienced in nature photography. I think most out-door photographers will agree with me that they take pictures like the Irishman plays the fiddle—to plagiarize a comparison I read somewhere or other—"neither by music nor ear, but, be jabbers, by main strength." Each species presents a different problem, and a good bit of hard work and tiresome waiting is often necessary before the worth-while results are obtained, but on the whole, it is fairly simple to photograph if one takes the time.

The equipment need not be expensive. The best camera to start with is the one you have. I am not going to go into the matter of lenses, focal length, exposure, and other details which may be obtained in any little handbook of photography, or which may be explained, in so far as is necessary for practical use, by a professional photographer. However, you may not have a machine and are desirous of obtaining one, so there are two things to consider, (1) the work you want to accomplish, and (2) the amount of money you have to spend. There is no camera that will do all kinds of work. If you can have just one camera, and desire one to carry around at all times, then I should suggest a hand machine of not over a 4x5 size. I find a 3½x4¼ a very fine one, for it is ideal to print contact lantern slides and you can make excellent enlargements. The machine can be fitted with a direct view finder so that you can hold it at

arm's length and take pictures. These cameras have the advantage of having a good depth of focus; they usually work as fast as 1-250 of a second, and you can have it with you at all times. There is nothing so discouarging as having a camera too heavy to tote around.

If, however, you can afford only one camera, and desire it for the sole purpose of photographing birds and mammals *from a blind*, I should recommend that you purchase a graflex with a long focus lens. The 4x5 revolving back auto graflex with Zeiss Tessar f.4.5 lens is an ideal outfit. It works to 1-1000 of a second and gives a much larger image than would be obtained with the small hand camera with its lens of much shorter focal length. The graflex has the advantages that you can watch your bird in the ground glass until it is in a pleasing position, and you can be sure of having it in sharp focus.

Films are far better than plates for the nature photographer. They are lighter and will not break. There are a few old stand-patters who insist on using plates, but films have so many advantages that I would never carry plates into the field. I have a friend who is at the head of one of the large western museums. He never felt as if he were out in the open unless he was carrying forty or fifty pounds of photo glass around in the shape of negatives. For years he insisted that you could not take pictures with films. Last spring, I met him as he was leaving for South America. We discussed cameras, and when I asked how many pounds of glass he was carrying, he shamefacedly admitted he had fallen by the wayside—he was carrying a film camera. For the beginner, I should recommend roll film, as they are convenient and safe. But when one has had a little experience, I believe cut films, used in either film holders, or in a magazine which will carry twelve, are ideal. They can be obtained in the several grades, just as with plates.

Before attempting to photograph birds, it is necessary to know your camera; it is essential to know how to secure a sharp negative—one in proper focus—with a given object at any distance. With the average amateur equipment, the closer the photographer can get to his bird, the better, and as most small cameras focus to within six feet, it would be well to make a series of experimental exposures at different distances. Note for instance, how sharp a picture you may obtain with your camera set at ten feet at f.6.3. Then cut down the diaphragm to f.11 and note the added depth obtained. If one is able to take good out-door pictures, he will be able to photograph birds, for the problems involved are identical.

There are three methods by which the photographer may get near his prospective subject. One is to stalk the bird until he is close enough. This is not practical, and in most cases is not recommended except when the bird can be approached in no other way. Another method is to set the machine on a tripod and take pictures from a distance, with a string to trip the camera. This too is unsatisfactory. To take pictures from a blind is by far the best method. And any kind of a blind will do, so long as the photographer remains concealed; it must have a top as well as sides. The smaller the blind is, the better, of course, but I have obtained very good results with big bulky tents made of burlap sacks. The umbrella blind has been used with good success. It is merely a large umbrella, with heavy curtains dropping around and the whole fastened up with cords. The pole of the umbrella is always in the way, however, and I greatly prefer my blind to be supported with a pole in each corner which will allow

more elbow room. The walls of the blind should be dark in color, and of heavy enough material that the birds cannot see through it, when the sun is at the back.

Now, we will assume that the novice at bird photography has learned to use his camera. If he has a 2½x4¼ hand camera, with Zeiss Tessar lens, for instance, he knows that he can set his camera for taking pictures at twenty-five feet and cut the diaphragm down to f.11, and that all objects from fifteen feet in front of the machine, approximately, to infinity, will be in sharp focus. He finds a place where shore birds work along the edge of a pond and erects his blind twenty-five to thirty feet from the water's edge, so the sun will be from behind and to one side. He conceals himself and waits for the birds. A flock of Dowitchers swirl in and alight twenty feet in front of him, and after probing a bit in the soft mud, they rest quietly in a more or less compact band. There is scarcely any motion, the birds are in a group, the light is right, so we have bird photography in its simplest phase. Instead of taking one picture, however, the photographer should take a dozen using different speeds. I make a practice of cutting down the diaphragm of my camera from f.11. to f.16. whenever the light is strong enough, but I rarely cut down farther. If the photographer will make notes on the exposures, he will find what speeds will stop motion. In the above example, even 1-25 of a second might catch the birds, but 1-50 of a second would probably give better results. If the birds are running about 1-100 of a second, or less, may be necessary. The secret of success is to take many pictures and keep notes on your exposures; it is far better to know what results one may obtain with his camera, to know what it will do under given conditions, than to understand why. Good photographs are secured through trial and error. There never was a photographer who did not make many mistakes. If, however, he blunders on without attempting to solve his trouble, he will never succeed, and the reason for failure can only be determined by keeping notes for each exposure, until the technical troubles are at an end.

Most beginners make the mistake of giving too short an exposure. Just because the camera will work at a speed of 1-1000 of a second is no reason for using that speed; in fact, it should never be used except for fast moving objects fairly close to the camera. A good rule is to give the longest exposure possible which will stop motion. The best nesting pictures are made with an exposure of from 1-50 to 1-100 of a second. Birds in flight require from 1-250 to 1-500 of a second, while if the birds are very near, the fastest exposure possible is necessary. It must be remembered that the faster the exposure, the wider the diaphragm should be opened, to allow more light, for otherwise, an unprintable negative will result.

The necessity for knowing how the individual camera works was well illustrated to me one summer in Colorado. I had an old 5x7 graflex which had seen its best days. I was unfamiliar with the camera, but as I had used a graflex for several seasons, I was sure of good results. I found a nest of Horned Larks, and the young were just hatching, so the mother was very solicitous and returned time and again, although I was seated within three feet of the nest. I was not in a blind, but the little mother came back without much hesitation. She stood over the nest, sheltering the young with wide spread wings, and she was so close I could make out every feather in the ground glass. There was no doubt that conditions were ideal for, except for a slight movement of the head. the lark was motionless. I made an exposure at 1-25 of a second, with the

diaphragm cut down so I would have as great depth of focus as possible. The mirror of the graflex flew up with a bang and the curtain rolled back. The noise caused the mother to jump from the nest, but she returned within a few minutes. Thinking that she might have moved slightly, I made several other exposures, up to 1-100 of a second, and finally, just to test the speed of the film, I made one at approximately 1-300 of a second with the diaphragm at f.4.5. I returned to the laboratory and developed my films, confident of having some wonderful Horned Lark pictures. I had a beautiful picture of young larks in each case except the last, which was under-exposed, but no adult bird. There had been just enough hang-up between the rising of the mirror and the roll of the shutter across the film that the lark had time to jump clear out of the picture before the exposure was made!

With most machines, the rise of the mirror and the exposure is simultaneous, but the one I was using was too antiquated for photographing such a nervous bird as that Horned Lark.

The amateur bird photographer will have many interesting things brought to his attention. The difference in temperament of individuals of the same species is amazing; some birds absolutely refuse to pose, while others return to their nests time and again. The nesting season is the best time to secure pictures, and if one can be on hand when the eggs are hatching, he will be sure of good results. One time at Cape Prince of Wales, in northwestern Alaska, I found a nest of Aleutian Sandpipers. It was in a hollow on the ground, surrounded with light-colored reindeer moss. I dropped my hat over the young, that I might find the nest quickly, and then I backtracked a few hundred yards where I had cached my camera. Imagine my surprise, ten minutes later, on my return to the nest, to find that the adult sandpiper had crawled under my hat to shelter her newly-hatched babies!

Birds which nest in colonies are, as a rule, very easy to photograph, and they will return to their nests within half an hour after the photographer has concealed himself. Birds preferring to be alone during their nesting period, on the other hand, are apt to be shy. Oftentimes they will not return to their nests for hours, and so it is often a good plan to erect a blind at some distance from the nest, and allow it to remain a day or so, gradually moving it nearer, that the parents may become accustomed to it. I have had my blind within three feet of nesting birds, but the distance is usually about six feet.

The above has been written more with the idea of interesting other students in bird photography, than in giving information. Each individual has to work out his own salvation, but I am sure that anyone who has not attempted to take bird pictures, will find it a very enjoyable experience.

If, this coming season, the members of the W. O. C. will go afield wtih their cameras, I am sure that the combined results will total hundreds of excellent studies, and I know of no better place to publish them than in the WILSON BULLETIN. There is one sure way to secure a *reputation* as a good bird photographer, and it is a formula used by all experienced field men—take many pictures of each subject, throw the poor ones away, and show only your best!