

justified in so doing, but if all the schools were to do the same it would cause great and unnecessary slaughter.

Now with specimen or description before you, the text book is appealed to for identification. Usually you will not have to use a key to find the family. The grotesque facial disc will disclose the owl, the key will instantly point out the species. The strong sharp bill, short neck and peculiar claws will proclaim the woodpecker. The key will do the rest. Water birds are readily resolved into families. Small birds with large, short, but bills evidently adapted to seed-eating, are likely to be sparrows or finches. Smaller and more graceful ones, highly colored and armed with tiny sharp bills, are likely to be warblers. When the specimen is available the teacher will, of course, by discreet questioning, cause the pupils to discover all these points for themselves.

Care must often be taken to read up two descriptions under one heading as the sexes so often differ greatly in appearance. The greater beauty is given to the males. This is not uniformly so. There are some startling inversions of the regular rules of bird economy. Usually the female is the housebuilder, housekeeper, guardian and teacher of the young. The mate is a casual assistant and protector, but his chief role is to pour forth his sweet strains of music and be as ornamental as possible. But not infrequently among some species the males build the nest, incubate if not lay the eggs, and teach the fledgelings. In many instances, as among the hawks, the females are much larger than the males.

Some one might ask what is the best time to begin this study. Chapman recommends that it be taken up first in winter because then there are fewer birds and the work consequently less discouraging, but such advice applies better to the latitude of New York than New Brunswick. Not only is the temperature much lower here, but the number of birds that stay here during winter is small compared to that State. Still we would recommend teachers to begin their own private work in winter if possible; but I think the best time to interest a class is during the great spring migration. It would not be wise for the teacher to go out to the woods with a class before he had previously gone over the same ground. Get the pupils to go on little excursions by themselves or in small companies and report. Thirty pairs of eyes can see much more than one.

It is often not advisable to take your whole school with you en masse. Near towns where trespassing is a common offense, owners of farm lands may resent pupils trooping through their meadows; woods and wild land may be too far. The river bank may be too wet. There will be some way of overcoming these adverse conditions. The writer has found the plan of letting each pupil make his own arrangements about his trip. They are sure enough to go—the boys anyway. Let them go by twos or threes as they choose.

Require accurate descriptions of birds discovered written out on a slip of paper, signed and dated. These should be handed to the teacher as soon as possible. They can be looked over at the teacher's leisure. Many will never be identified owing to meagreness or inaccuracy of details or more commonly owing to ignorance of colors and shades. Some descriptions will be very apparent; there will be problems difficult of solution. It will be seen that these are at the same time *color, language and memory lessons*.

I would recommend that there be some uniformity in pupils' descriptions by requiring them to mention first the size—relative size—not size in inches, unless the specimen can be measured; then general appearance or color; probability of its being a sparrow, warbler or wader; then the more prominent markings, and lastly smaller details and habits of flight, feeding and song. Be watchful at this stage or the humorously inclined will bring you in a vague description of a barnyard rooster. Leaving out one or two important details will sometimes make a description wonderfully puzzling. When these descriptions are finally deciphered and you feel quite sure of your bird, they should be read to the school and their opinion taken. Some may know it already. In any case turn up the description in the handbook and show them how well it tallies with the boys' work.

There is nothing very original or striking about this method, but it obviates the necessity of going with the pupils in a body and the results are very satisfactory. It also does away with a problem in discipline, for if you take all pupils with you, there are likely to be a few untamed ones who will just be spoiling to show that discipline has necessarily relaxed and they know it.

Again it saves time, for no time from school hours is taken by this method. The boys hunt up the birds while driving the cows or performing other duties. Saturday rambles are then less aimless, or possibly an evil aim is changed to a profitable one. He soon finds, too, that he has more to learn from a living bird than from a dead one, and respects bird life accordingly. As the motto of the Audubon society has it, "A bird in the bush is worth two in the hand."

Once started, the interest is more likely to increase than to die out. It may require farming for a short time, but in the spring, when the great bird migration takes place, some other lessons are likely to suffer. But the spring calls every living thing out and lessons suffer anyway. Every teacher knows that even with the fateful examinations near at hand, the pupils are less disposed to study than ever. If you can get some good work done then it is wise to do it, even if it does not count much in the examination.

Do not teach much bird life then during the winter. Drill deeply in mathematics, and save nature study and its attendant enthusiasm for the spring. It might be well once in a while to whet their appe-