Toxostoma rufum.—Brown Thrasher. Two seen April 3, and one on the 10th, and one on the 11th.

Thryothorus ludovicianus.—Carolina Wren. First seen on April 2, and several were seen on April 7. They were no doubt keeping out of the way until the cold wave was over.

Thryomanes bewickii.—Bewick's Wren. Fairly common about the houses. One was singing on April 3, and Mr. Connor Lyons found a nest and one egg on the 9th. This wren seems to have a much more loosely jointed tail than has the House Wren; it gives one the impression of being worked on a ball socket.

Sitta carolinensis.—White-breasted Nuthatch. Fairly common from April 1 to 13, sometimes in small flocks, but usually in pairs. Specimens I examined have a more slender beak than Ontario birds.

Parus bicolor.—Tufted Titmouse. Several seen from April 7 to 11.

Parus carolinensis.—Carolina Chickadee. Fairly common and well distributed in the woods.

Polipotila cærulea.—Blue-gray Gnatcatcher. One seen and one shot on April 8.

Merula migratoria.—American Robin. A few seen on March 30, and no others until April 5. After that date several flocks were seen up to April 15. The birds appeared to be migrants. Although no birds were taken I doubt if they were achrusteus. Mr. Handy failed to find any breeding.

Sialia sialis.—Bluebird. Fairly common in fields and new clearings.

## THE RUFFED GROUSE (Bonasa umbellus) IN PENNSYLVANIA.

## FRANK L. BURNS.

During the season of 1906, that king of game birds, the "Pheasant" of Pennsylvania, perhaps reached its high-water mark in point of abundance for recent years, especially in our northern counties; and the reports to our game commissioners confirmed the belief that it was present in every county of the state excepting only Philadelphia. I have been fortunate in securing a number of skins through the kindness of several local sportsmen returning from several weeks' shooting in the upper tier of counties; one bird being in the beautiful gray plumage, "Silver-tail" as it is locally known; some five or six

were taken in Wayne county. It has been the favorite theory of one of my sportsman friends, that inasmuch as he and his party had killed 125 birds the previous season in this one locality, about 100 of them being males, their places had been filled by the more numerous Canadian Ruffed Grouse from the north. Mr. Witmer Stone of the Philadelphia Academy of Natural Sciences examined my specimen and I am sure he will pardon me for quoting him without permission: "I have seen others like it from the state, and some that were even more gray: unfortunately, however, I have not a good series here for comparison. The case is just this way: (a) If the Canadian birds are all or nearly all gray and the southern birds practically all red, then Pennsylvania is the meeting ground of the two races and such a bird as yours is an intermediate. (b) On the other hand if you get both red and gray birds, both north and south, then the difference is dichromatic or individual, like the Screech Owl, and there is no Canadian race, even though gray birds predominated somewhat to the northward or vice versa. I have not the material to settle this matter, but Edwyn Sandys and L. E. Van Dyke in Upland Game Birds say of the Canadian birds that they have 'shot hundreds of them in every Canadian province except one \* \* \* \* have bagged smoky tufts, black tufts, brown tufts and no tufts; gray tails, gravish-brown tails, and reddishbrown tails; have had all but one of them in the same bag, and killed a brown tail with one barrel and gray tail with the other.' If this is really the condition in the stronghold of togata then I should say there was only one Ruffed Grouse in the east. But some parts of Canada are as 'Carolinian' as Pennsylvania, or nearly so, and others are pure 'Boreal' and the above statement does not take this into consideration. It is a matter for careful study with a big series of specimens. All I can say is that with my present knowledge of the subject I can see no difference between your bird and our Maine and Canadian togata except in its having a little more red-brown in its plumage." My father was a famous "Pheasant" shot, and killed a great many birds in a period extending over half a

century, in Chester and adjacent counties; yet he does not remember having ever taken the Silver tail. I have examined several hundred birds in the meat taken in northern Pennsylvania previous to 1906 and found not more than one or two in the gray phase. The past open season seems to have been a failure in spite of the care taken to prevent forest fires and rigorous enforcement of the game laws in the state. Friends returning from Wayne and Cameron counties report scarcely one old bird where there were a dozen last season and practically no young at all. Of fourteen birds secured but a single one was of the year. It appears that the late and very rainy spring proved extremely unfavorable to the breeding of this hitherto supposed very hardy bird; few eggs hatched and the nesting birds were attacked by a disease said to resemble the roup, the sitting bird was frequently found stiff and cold on her nest of addled eggs, others were picked up fluttering and helpless in the woods unable to escape their enemies. It seems scarcely possible that the Grouse had become too thick to thrive?