

of the feathers here are imported, and pay 25 per cent. duty when they come in the skin and 50 per cent. when made up. The raw skins should be free, for there can be no sense in putting a protective tariff, say on South American birds, under the notion that some day or other we can raise them in the United States. I should say that from 10 to 15 per cent. of the feathers consumed here are of American growth, and of these the great bulk come from the Southern States, Florida, Texas and Louisiana. I have men out now in Texas, and here are two cases of merles sent in by them. The birds have to be taken when in plumage, and this, in some species, is only a few weeks out of the year. There are a very few birds in the North taken, simply because there are few to be taken. Now and then great flocks of the snow bunting come down from the north and are welcome to the gunners who shoot and trap for the trade; herons, too, and some species of duck. The sparrow, that little pest which I saw introduced here and raised my voice in protest at the time, is now brought in and made use of. It is 'degraded,' as we say. That is, the skin is bleached until it is a neutral tint. This is done in all skins where it is desired to dye the feathers. Common poultry feathers are now entering into the trade. As yet we do not get many from this country, because our people have not yet learned their value; but in Poland and other parts of Europe, the feathers of the poultry killed are just as carefully preserved for sale as the eggs. Our first task is to separate them, for in the feathers of a single bird we make seven grades. The steaming is followed by the dyeing, either black, or yellow, or red, or anything fashion may dictate.

"I would gladly see the indiscriminate killing of birds stopped. We have law enough, I think. What is needed is the enforcement of those laws, and that can be reached by the education of the people; but on the other hand, it is not fair to say that because there are no birds where years ago there were plenty, that therefore they have found their way on to ladies' bonnets. As settlements are made, certain species retire. I have shot foxes on that hill yonder where now you see rows of houses, but the houses killed the foxes, not I."

As the feather maker talked he drew out drawer after drawer, opened tin boxes by the dozen, drew out the wrapped skins, until every section of the earth had contributed its quota. Down below stairs were coops of ring doves, sleek and coy, and genuine white doves, too, not the ordinary white pigeon. Strutting about the yard outside were peacocks in all the glory of full strut, waiting the day when in the height of plumage, a severed vertebra should give them the happy despatch and give their feathers to the adornment of some elaborate screen. Chinese pheasants too were in other coops, and all about were evidences that Mr. Alexander was an ornithologist, and differed from the ordinary feather dealer in knowing his stock in trade; for with a single feather as a text the genial tradesman could preach of family and genera, of habitat and habits, of past and present trade history, and tell, too, of trips into every nook of the world in feather quests.

In the city C. Burton Rouse is the editor of the *Millinery Review*. He confessed that he had no statistics, had never known of any gathered beyond those given in the Custom House returns, and there the various classes of feathers were run under a common heading. About \$10,000,000 per year he thought would represent the feather trade of the country in the finished article, and of this about 40 per cent. represented what the raw article costs; in other words, what the bird killer got. He did not know of any exportation of our American birds, and thought that 10 per cent. would represent our domestic contributions to our domestic consumption. A single week might see a change in fashion, and the birds so eagerly sought to-day might not a fortnight hence be worth the wad in the cartridge burned in their killing.

Thomas Wood, one of the best known leaders in the wholesale handling of millinery goods, stood in one of his great lofts with open boxes of pretty artificial flowers and made-up feather ornaments about him, and said that it would be impossible to form any very accurate estimate of the business. He called attention to the fact that many of the feathers were from sea fowl and from game birds, the prairie chicken and sandpiper, for instance, hunted for their flesh. Then the foreign birds sold at the regular London auctions of skins in the Fenchurch street rooms of Hall & Son, were of foreign birds coming from portions of the British Empire, where the birds existed in countless numbers. They were not song birds, but such as parrots, tanagers, and others of marked plumage and not of the insectivorous class.

Other dealers were seen. All of them had heard of the movement for the protection of home birds, and in every case they spoke in favor of it, urging that the largest measure of success would come with the cultivation of local effort, that in a particular section or neighborhood the laws enforced would bring benefit to those who acted as bird protectors, and all agreed that, with the fashion turned from any particular class of bird, there would be very little risk of any one hunting it.

WILD ANIMALS OF MAINE.

CARIBOU—CERVUS TARANDUS.

ONLY the woodland caribou occurs in this State. The barren ground caribou are found further north. Among the cervine tribe of animals of the western continent there are, perhaps, none more interesting than the caribou; comprising delicacy of form, roundness of body, fine tapering limbs, in fact, a compactness of organism calculated for fleetness and endurance, seldom seen in any other animal.

A full grown male will weigh about four hundred pounds, and the female adult near one hundred pounds less. The venison is considered by many preferable to the moose or deer.

Their hoofs are very broad, parting like the ox, and sharp, enabling them to travel with as much ease on ice as on land or snow.

When running at full speed they spread their hoofs, squat on their haunches from gambrel to foot, and thus are able to keep top of very light deep snow and at the same time throw themselves ahead with immense force. And when under full blast, a herd of them reminds one of a train of cars under full headway.

The old male sports a very pretty set of horns, which rise high over his head, with two frontals nearly covering his eyes. The frontal branches are peculiar to this animal. These immense antlers are slanted back on to his shoulders by elevating his nose while going through thick woods. The young and females have no horns, as a rule; yet there have been some females killed in this State with good-sized horns. These are exceptions, however, as I have killed and handled a large number and have never yet seen horns on a female. The horns appear on the male the second year, and they cast

them every winter after January, generally in a thaw and generally one horn at a time. They seem to have an itching sensation and rub them against a tree, and so shed them; and like all the deer kind, receive new ones in early spring.

They breed at the age of two years, going with young about nine months, dropping them in May and June.

They are extremely social in their habits, congregating in large herds where they are plentiful, and only singling off when frightened and scattered, or by accident stray away. They live chiefly in swamps and subsist on mosses and lichens, though when hard pressed for food they nip the tender buds of the willow and maple. They eat the moss of trees as well as ground moss, by sitting on their hindlegs, and, putting their forward feet against the tree, stretch up high on the body of the tree. In early morning or late evening they may be found facing the south and working in that direction, and the experienced hunter will take his position and wait their approach in the feeding season. The reason they face the south while feeding is that the moss grows more abundant on the north side of trees.

In the rutting season, which occurs in September or October, the call has the sound of "A" flat, with a tremulous continuation, and in winter a continued grunt ending in a higher key. They may have other sounds but I have not been able to hear them. They are not considered dangerous or vicious, yet if cornered or excited I would as soon be in a safe place.

They migrate from one forest to another in large herds. Thus for many years they have inhabited the Province of Nova Scotia and the adjoining forests, but a few years ago they seemed to leave the Provinces and came over into Maine, and for fifty miles along the range of the Rangeley Lakes, they were very abundant, and more than a hundred were killed in that fall and early winter by hunters of the Umbagog region, and some about Rangeley and Kennebeco. Among those killed were some very fine bucks with large handsome antlers. When the snows are deep and in the coldest weather, they stay mostly in the dense forest, and in early spring they seek the lakes and ponds.

The best way to hunt them is by still-hunting or stalking. It would be impossible to successfully hunt them with dogs. In the spring time when they are on the ice a man can go on to the lake some distance to leeward of the herd or individual as the case may be, and lie down, stick his gun up over his head and by moving it to and fro attract the attention of the caribou, and when the animal discovers it he will make for it, but there is danger of being run over if it be a herd, for when their curiosity is aroused they are very excited. To hunt them in thick woods the hunter spreads a sheet over his head and walks carefully up toward the game, and when observed by the animal, stops still until he is composed, then walks on again until near enough to take his choice of the herd, but if a large herd there is danger of being run over, for after a few shots are fired they get crazed and furious and run in every direction for some time, then make straight off for many miles toward the mountains or swamps.

In the spring of 1862 I went with an Indian of the St. Francis tribe—named Prince Bushola—on a hunting expedition from Canada down by the forks of the Kennebec River and over Moxey township, in the northern part of Somerset county. On the borders of Moxey Pond we discovered a herd of caribou of nearly thirty individuals. With sheets spread over our heads and bodies we slowly advanced toward them on the lee side, so they could not scent us by the wind, and we were favored by a light falling snow. We struck their sloat on the pond and followed up carefully within sight of them. I was highly excited. The woods seemed alive with them. Some were reared high up against the trees feeding on the moss; others digging away the snow for evergreens on the ground; others were walking about making a low moaning noise in short grunts; others were lying down, and others still fawning each other in the most affectionate manner. Presently I heard Bushy fire (I called my Indian guide Bushy for short), and very soon after heard him shout, and at the same time the very woods seemed alive with caribou—the roaring sound of a large herd on the travel, and the sonorous grunts of the old males, together with the lively shouts of Bushy, who was an eighth of a mile to the north of me, made the woods ring with exciting interest. I started toward the Indian, but it was with the greatest difficulty I could reach the spot from which the shout arose, and on my way shot, right and left, an old buck and a year old doe.

The whole herd were now fairly aroused and on a lively scare, running hither and thither. Bushy had shot a large doe, and several old males were after him, and he had jumped into a beech top and had dropped his ammunition. On my approach they scattered, and Bushy, being relieved, soon reloaded and let drive at the nearest.

As one came near in their circuit, we would shoot until we had killed seven, when the whole herd made off to the northward at a tremendous pace, and we with tumplines and fir boughs dragged our game together on the shore of the pond and then enjoyed the realization of our successful hunt over a pot of hot tea and roast venison.

We camped on the shore of Moxey Pond that night and the next day we made some moose sleds and loaded on each a whole animal and slowly made our way out of the woods to the military road, made more than a hundred years ago by Arnold, while on his disastrous expedition into Canada, six miles distant, thence back to camp and so on until we hauled them all out. Bushy then returned to Moxey, where he trapped a few wecks for fishers and sable. I took the caribou to Boston, whole, hired a room at the foot of Cambridge street on Charles street, where, after due notice in the daily papers, I was visited by Prof. Agassiz and gentlemen from the Boston Society of Natural History and agents from Yale College, and others who examined my stock in trade with much interest, and made purchases—some for skeletons, others for mounting, and others for both—and the most of the same caribou can now be seen, prepared and preserved, in the above museums.

Thus a relic of that herd of caribou of twenty five years ago is being handed down to future posterity—possibly in the future years when the original animal shall be extinct.

J. G. R.

BETHEL, Maine.

IVORY-BILLED WOODPECKER.—On March 7 I was so fortunate as to procure a specimen of the above-named rare species. It was pecking on a large cypress tree in a swamp near the St. Mark's River, about twenty miles from this place. I observed a pair of these birds near the same place a few weeks previous, but was unable to shoot them, as they are very shy. March 8 I killed two pileated woodpeckers at the same place. They are abundant all along the river and in the cypress swamps throughout the States.—HORACE A. KLINE (Tallahassee, Fla.).

HAWKS AND OWLS.

BENEFICIAL OR INJURIOUS?

AT a meeting of the West Chester (Pa.) Microscopical Society, held March 4, some interesting matter on the subject of the good and bad qualities of our rapacious birds was brought out.

This subject had been investigated, under the circumstances explained below, by a committee, of which Dr. B. Harry Warren was chairman.

REPORT OF COMMITTEE.

The committee appointed at the last meeting of the Microscopical Society to take into consideration the Act of Assembly passed the 23d day of June, A. D., 1885, entitled "An act for the destruction of wolves, wildcats, foxes, minks, hawks, weasels and owls, in this commonwealth," and which reads as follows: "That for the benefit of agriculture and for the protection of game within this commonwealth, there is hereby established the following premiums for the destruction of certain noxious animals and birds, to be paid by the respective counties in which the same are slain, namely: For every wildcat \$2, for every red or gray fox \$1, for every mink 50 cents, for every weasel 50 cents, for every hawk 50 cents, and for every owl (except the Acadian screech or barn owl, which is hereby exempted from the provisions of this act) 50 cents;" beg leave to report that the chairman of the committee, Dr. B. Harry Warren, Ornithologist of Pennsylvania State Board of Agriculture, has devoted several years of his life to the collection, dissection and examination of birds, and that all of the committee from observation and experience, have believed that all of the birds denounced in the law above quoted, with rare exceptions, have been found to be the best friends of the farmer. Lest, however, any of the committee might be mistaken, they have corresponded with the best ornithologists in the country, men who have made ornithology a study and are connected with that department in the Smithsonian Institution, asking their opinion as to the benefits or injury likely to arise from the execution of the law against the birds therein named.

They have received answers from Dr. C. Hart Merriam, Ornithologist of the United States Department of Agriculture; Robert Ridgway, Curator of Department of Birds United States National Museum; Dr. Leonard Stuebejer, Assistant Curator of the same department; H. W. Henshaw, of the Bureau of Ethnology, also a collector of birds for the Smithsonian Institution and connected with the late Wheeler Survey of the Territories, and Lucien M. Turner, a collector of birds, etc., for the Smithsonian Institution for the last twelve years. These answers, which are annexed to this report, all bear testimony that the hawks and owls are of great benefit to the farmer, and render him far greater service than injury, and that it is unwise to select any of them for destruction.

The committee regrets that there have been ninety odd hawks and a dozen or more owls killed since the law was passed, June 23, 1885, at a cost to this county of about \$75, and that the slaughter is still going on.

Believing, therefore, that the killing of these birds is detrimental to the interest of the agriculturists, they believe that instead of being destroyed they should be protected, and they, therefore, recommend the passage of the following resolution:

Resolved, by the Microscopical Society of West Chester, that in the opinion of the society, the act of June 23, 1885, offering a premium for the destruction of hawks and owls is unwise and prejudicial to the interests of agriculture, and so far as those birds are concerned, ought to be repealed.

Resolved, That the president and secretary of the society be instructed to forward a copy of the above resolution to our members of the Legislature at its next session and request their aid toward the repeal of the act so far as is above stated.

All of which is respectfully submitted.

B. HARRY WARREN,
W. TOWNSEND,
THOS. D. DUNN,
JAMES C. SELLERS. } Committee.

MARCH 4, 1886.

U. S. DEPARTMENT OF AGRICULTURE,

WASHINGTON, D. C., March 2, 1886.

Dr. B. Harry Warren, Ornithologist of the Pennsylvania State Board of Agriculture;

DEAR SIR—Your letter of the 1st inst. has just come to hand. I have read with surprise and indignation the copy sent of Section 1 page 141 of the laws of Pennsylvania for 1885, in which a bounty is offered for the destruction of weasels, hawks and owls. The clause purports to have been enacted "for the benefit of agriculture," etc.

The possibility of the passage of such an act by any legislative body is a melancholy comment on the widespread ignorance that prevails even among intelligent persons, concerning the food of our common birds and mammals, and is an evidence of the urgent need of just such systematic and comprehensive investigations as this department is now making on the subject of the relation of food habits to agriculture.

There are two kinds of weasels in the Eastern States. The smaller kind feeds chiefly on mice and insects and is not known to kill poultry. The larger preys also mainly on mice and rats, but in addition sometimes kills rabbits and poultry. Both species are friends of the farmer, for the occasional loss of a few chickens is of trifling consequence compared with the good that these animals are constantly doing in checking the increase of mice.

You ask my opinion in regard to the beneficial and injurious qualities of the hawks and owls which inhabit Pennsylvania. This question seems almost superfluous in view of the fact that your own investigations, more than those of any other one person, have led to a better knowledge of the food habits of these birds, and what you have done in the East, Prof. Aughey, of Nebraska, has done in the West. Many others have added their "mites," till at the present time a sufficient array of facts have been accumulated to enable us to state, without fear of contradiction, that our hawks and owls must be ranked among the best friends of the farmer. With very few exceptions their food consists of mice and insects, meadow-mice and grasshoppers predominating. The exceptions are the fierce goshawk from the North and two smaller resident hawks, Cooper's and sharp-shinned, which really destroy many wild birds and some poultry. These three hawks have long tails and short wings, which serve, among other characters, to distinguish them from the beneficial kind.

Strange as it may appear to the average farmer, the largest hawks are the ones that do the most good. Foremost among these are the rough-legged and marsh hawks, which

do not meddle with poultry and rarely prey upon wild birds. Of hawks and owls collectively, it may safely be said that, except in rare instances, the loss they occasion by the destruction of poultry is insignificant in comparison with the benefits derived by the farmer and fruit grower from their constant vigilance; for when unmolested the one guards his crop by day and the other by night.

It is earnestly to be hoped that you will succeed not only in causing the repeal of the ill-advised act which provides a bounty for the killing of hawks and owls, but that you will go further, and secure the enactment of a law which will impose a fine for the slaughter of these useful birds.

Yours very truly,
C. HART MERRIAM,
Ornithologist of the Department of Agriculture.

UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
WASHINGTON, March 3, 1886.

Dr. B. H. Warren, West Chester, Pa.:
DEAR DR. WARREN—I am just in receipt of your letter of the 1st inst., and therefore fear that my reply cannot reach you in time for use at the meeting to-morrow evening. It affords me much pleasure, however, to comply with your request for my views concerning the food habits of hawks and owls, and their relation to man.

Of all the species which you name there are only two which, according to my best judgment, are at all seriously destructive to game or poultry, these being Cooper's hawk and the great-horned owl. The rest, with the possible exception of the sharp-shinned hawk, which certainly is destructive to the smaller birds, my experience leads me to regard as very decidedly beneficial to man, their food consisting very largely, if not chiefly, of the smaller rodents, field mice especially. The red-shouldered and red-tailed hawks occasionally pick up a young chicken or rabbit, but I feel quite sure that their service to man far outweighs the injury which they thus do. The little sparrow hawk and other smaller species destroy large numbers of grasshoppers, locusts, and other large insects.

Very truly yours,
ROBERT RIDGWAY, Curator, Dept. Birds.

SMITHSONIAN INSTITUTION,
WASHINGTON, D. C., March 3, 1886

Dr. B. H. Warren, West Chester, Pa.:
DEAR SIR—In reply to your letter of the 3d inst., asking for my opinion in regard to the food etc., of certain hawks and owls specified, I would state that I have read Mr. Robert Ridgway's answer to a similar request from you, and that I agree with him in every particular. The idea of persecuting the majority of hawks and owls systematically is simply preposterous, and any law which has for its object their indiscriminate destruction should be immediately repealed, since most of the birds alluded to are among the very best friends of the farmer. In regard to a few species it is well worth while to suspend judgment until a thorough investigation as to their habits and food in your State can be carried out, for, as you are well aware, a species which in some parts of the country and at some seasons may be injurious, in other regions and under altered circumstances may be chiefly beneficial. I remain, yours sincerely,

LEONARD STEJNEGEL,
Assist. Curator Dept. Birds, U. S. Nat. Mus.

WASHINGTON, March 3, 1886.

B. H. Warren, M. D., West Chester, Pa.:
DEAR SIR—In reply to your favor of the 1st inst. asking for my opinion with regard to the economic utility of the birds of prey, I take pleasure in responding as follows: To the ornithologist, whose business it is to study the habits of birds, the widespread ignorance of the habits of the hawk and owl tribe and the mistaken idea as to the amount of injury they do are almost inconceivable.

So common, however, are these erroneous ideas respecting the birds of prey and their relations to the farmer and agriculturist that it is not at all surprising that laws similar to the one now in force in Pennsylvania should be enacted.

Your own investigations into the nature of the food of the birds of prey of your country might be cited in support of the statement that such enactments are based upon erroneous conceptions. I may add that wherever such investigations have been systematically conducted they have resulted in a verdict favorable to the birds of prey. In almost every portion of this country I have found the opinions of all field ornithologists to be in favor of the preservation of the hawk and owl tribe on account of the good they do. I believe the time will come when the farmers as a class will carefully protect the hawks and owls on the ground of their beneficent services.

Following is the list of species most numerous in your State:

1. Marsh hawk (*Circus cyaneus hudsonius*).
2. Sparrow hawk (*Falco sparverius*).
3. Red-shouldered hawk (*Buteo lineatus*).
4. Red-tailed hawk (*Buteo borealis*).
5. Cooper's hawk (*Accipiter cooperi*).
6. Sharp-shinned hawk (*Accipiter fuscus*).
7. Broad-winged hawk (*Buteo pennsylvanicus*).
8. Rough-legged hawk (*Archibuteo lagopus sancti-johannis*).
9. Short-eared owl (*Asio accipitrinus*).
10. Screech owl (*Scops asio*).
11. Long-eared owl (*Asio wilsonianus*).
12. Barred owl (*Strix nebulosa*).
13. Horned owl (*Bubo virginianus*).

Of this list, the marsh hawk, red-shouldered hawk, red-tailed hawk, broad-winged hawk, rough-legged hawk, short and long eared owls, screech owl, barred owl and horned owl are of very great value to the agriculturist because of the immense numbers of meadow mice and other small rodents they annually destroy. The mice when unchecked increase with amazing rapidity, and the hawks and owls above named are among the chief natural means for their destruction, mice and other rodents forming a large percentage of their food. The harm the hawks do in the destruction of small birds is inconsiderable compared with the benefits derived by the farmers from the destruction of the four-footed pests. The owls particularly work by night, and hence the benefits they confer are easily overlooked.

The sparrow hawk is one of the most harmless of birds and one of the most beneficial to man. He lives almost exclusively on grasshoppers and crickets, and the number of the former destroyed by these birds is incalculable.

I mention the Cooper's and sharp-shinned hawks last because they unquestionably kill many small birds and they also commit depredations upon the poultry yard. I believe, however, that they can safely be left to be dealt with by the

class they injure, chiefly poultrymen. To place all the hawks and owls under ban, and to attempt their extermination simply because one or two species are injurious, is certainly not good policy.

After more than twenty years' study of birds, I am decidedly of the opinion that the hawks and owls as a class are of great economic value, and that no State in which agriculture is pursued to any extent can afford to dispense with their services. They not only ought not to be exterminated, but they should be placed upon the list of birds protected by law. I am, very truly yours,
H. W. HENSHAW.

SMITHSONIAN INSTITUTION,
WASHINGTON, D. C., March 3, 1886.

B. H. Warren, M. D., Ornithologist Pennsylvania State Board Agriculture, West Chester, Pa.:

DEAR SIR—Your letter of recent date requesting my opinion of the act (No. 109) of the Commonwealth of Pennsylvania relative to the premiums paid for the destruction of certain species of birds and mammals, alleged to be injurious and classed as noxious within the meaning of that act, is at hand.

I must confess a surprise at the truly lamentable ignorance of the framer of that act in regard to the supposed noxious character of the hawks and owls, upon whose lives a premium has been set for their destruction.

It is well known that no more beneficial bird exists than the owl, whose nocturnal habits render it specially fitted to pursue the smaller rodents, such as the mice, whose ravages upon the field, grain, root and orchard are so well known that all farmers have from time immemorial exclaimed against the destructiveness of those quadrupeds whose annual devastation causes the money value of the losses sustained through their ravages to swell into countless thousands of dollars.

The tender growths of the orchard are decorticated by the mice and rabbits, which are in turn devoured by the owls sought to be destroyed simply because some one desires to become notorious as a lawmaker, and through utter ignorance of the subject endeavors to deprive the farmer of his best nocturnal friends, which guard the growing crop with zealous care while the owner sleeps to regain a strength to enable him to continue the daily toil of protecting his crops from the devastation of his sleek-furred enemies, most insidious at night. There is not a species of owl but that amply repays for the few incursions made at irregular periods upon isolated hen roosts. Where a single fowl is thus lost, a thousand mice pay the penalty of their lives to the same owl.

The nocturnal habits of the owls render their services far more beneficial than may be accurately ascertained.

In regard to the hawks, their reputation is much exaggerated so far as their injurious propensity is concerned, yet, when truthful evidence is placed in the scales, the beneficial services of the hawks will preponderate in a most-satisfactory manner.

Certain species of the diurnal birds of prey are well-known to feed almost exclusively upon small rodents, and in fact, differing but little from the owls in regard to their food. Two or three species of hawks (those belonging to the genus *Archibuteo*) are notoriously the best diurnal mouse catchers of all birds. Their habits to soar over the level tracts devoted to grasses and search for their food are so well-known that further consideration of them is but repetition of established facts. The bolder species of hawks so rarely commit depredations upon the farmyard fowls that these instances are, without doubt, the result of an individual predilection for which the entire family should not be branded. The number of rabbits and mice which the hawks annually destroy is simply incredible, as any really observant person will admit.

In my own opinion the destruction of the hawks and owls within the State of Pennsylvania will, ere many years, result in an incalculable injury to the farmer, who will be overrun with hordes of mice, which he will be powerless to limit, as their reproductiveness, when undisturbed, progresses with astonishing rapidity.

It would, in my opinion, be a wise measure to have the act relating to the alleged noxious birds totally repealed. Very truly yours,
LUCIEN M. TURNER.

FOOD EXAMINATIONS.

From a report entitled "Diurnal Rapacious Birds" (with special reference to Chester county, Pa.), prepared by B. Harry Warren and published in the annual report for 1883 of the Pennsylvania State Board of Agriculture, is taken the following reference to the stomach examinations of the species of hawks most commonly found in Pennsylvania:

The Red-tailed Hawk (*Buteo borealis*).—My examination of one hundred and two birds of this species, revealed in eighty-one chiefly mice and small quadrupeds, also some few small birds; nine, chickens; three, quail; two, rabbit; one, ham-skin; one, part of a skunk; one, a red squirrel; one, a gray squirrel; three, snakes.

The Red-shouldered Hawk (*Buteo lineatus*).—Of thirty-six examinations which I have made of this species, twenty-three showed mice and small quadrupeds, grasshoppers and coleopterous insects; nine revealed frogs and some few insects, in two, snakes and portions of frogs were present, and from the remaining two small birds, particles of hair and a few orthopterous insects were taken.

Broad-winged Hawk (*Buteo pennsylvanicus*).—In twelve specimens examined by myself, four revealed mice; three, small birds; four, frogs; one, killed the 22d of May this present year, 1882 was gorged with crayfish, with which were traces of coleopterous insects.

The Sparrow Hawk (*Falco sparverius*).—The stomach contents of twenty-nine of this species, which I have dissected, showed, in fifteen, principally mice, with frequent traces of various insects; six, grasshoppers; two, coleoptera and grasshoppers; two, meadow larks; four, small birds—sparrows.

Cooper's Hawk (*Accipiter cooperi*).—Of twenty-seven birds which I have examined, fourteen showed the food taken to have been chickens; five revealed small birds—sparrows and warblers—*Dendroica*—two, quail; one, bullfrogs; three, mice and insects; two, hair and other remains of small quadrupeds.

Sharp-shinned Hawk (*Accipiter fuscus*).—I have dissected fifteen of these falcons. Six of this number showed small birds; three, quail; one, mice; four, remains of young chickens; one, grasshoppers and beetles.

The Rough-legged Falcon (*Archibuteo lagopus sancti-johannis*).—Nine birds all showed their food to be exclusively field mice.

The Marsh Hawk (*Circus cyaneus hudsonius*).—Of eleven birds examined, five revealed mice; two, small birds—*Dendroica*;—three, frogs; one, a large number of grasshoppers

with a small quantity of hair, evidently that of a young rabbit.

Rev. Dr. Clemson spoke deprecatingly of the merciless slaughter sanctioned and rewarded by law of these harmless animals, as he called them, particularly those beautiful creatures, easily domesticated, habitants of the woods and meadows.

THE TENDER HEART.

SHE gazed upon the burnished brace
Of plump ruffed grouse he showed with pride;
Angelic grief was in her face;
"How could you do it, dear?" she sighed.
"The poor, pathetic, moveless wings!
The songs all hushed—oh, cruel shame!"
Said he, "The partridge never sings"
Said she, "The sila is quite the same."

"You men are savage through and through
A boy is always bringing in
Some string of bird's eggs, white and blue,
Or butterly upon a pin.
The angle worm in anguish dies,
Impaled, the pretty trout to tease—"
"My own, we fish for trout with flies."
"Don't wander from the question, please!"

She quoted Burus's "Wounded Hare."
And certain burning lines of Blake's,
And Ruskin on the fowls of air,
And Col-ridge on the water snakes.
At Emerson's "Forbearance," he
Began to feel his wit remembered;
At Browning's "Donald" utterly
His soul surrendered and succumbed.

"Oh, gentlest of all gentle girls."
He thought, "beneath the blessed sun!"
He saw her lashes hung with pearls
And swore to give away his gun.
She smiled to find her point was gained
And went, with happy parting words
(He subsequently ascertained),
To trim her hat with humming birds.
—Helen Gray Cone, in the Century.

MASSACHUSETTS BIRDS—Salem, March 18.—Bluebirds, redwings, cow buntings, song sparrows are with us again. A coot (*F. americana*) was recently shot near Boston. I saw the bird. Gulls occasionally seen in flocks on Lynn marshes.
—X. Y. Z.

A RAILROAD IN THE PARK.

THE Senate bill granting to the Cinnabar and Clark's Fork Railroad Company a right of way through the Yellowstone National Park has been favorably reported by the Committee on Railroads of that body. The action is lamented by every one interested in the region. Mr. W. Hallett Phillips, who under the direction of the Secretary of the Interior, devoted two months last summer to an investigation of the Park, has written to the chairman of the Senate Committee on Railroads the following letter:

WASHINGTON, D. C., March 18, 1886.

Hon. Phillet Sawyer, Chairman Senate Committee on Railroads:
SIR—I observe that there has been a favorable report from your committee on a bill granting to the Cinnabar and Clark's Fork Railroad Company the right of way through the Yellowstone National Park.

Thinking perhaps that the attention of the committee has not been sufficiently drawn to the importance of the measure as affecting the Park, I take the liberty of presenting to you some reasons why, in my estimation, the bill should not be enacted into a law.

Last summer I was instructed by the Secretary of the Interior, under an appointment from him, to proceed to the Yellowstone Park with a view of placing before him for executive action and recommendation such information as I might acquire in reference to the protection, improvement and preservation of the Park. My report to the Secretary was communicated by him to the Senate under a call made by that body, and is printed as S. Ex. Doc. 51, present Congress.

In that report I remark: "Interested parties have for some years brought to bear a constant pressure upon Congress and the Department to induce action in favor of a railroad through the Park. The railroad is sought ostensibly for the purpose of bringing to market the ore from Cooke City, a mining camp adjacent to the northeast boundary line of the Park. If there is one object which should be kept in view more than any other, it is that of preserving the Park as much as possible in a state of nature. A railroad through it would go far to destroy its beauty, and besides, it is not demanded by the public. The roads are being improved yearly, and soon will make every portion of the Park easily accessible. The distance between the points of interest is not great, and transportation is good and plentiful. Apart from the consideration that a railroad is not needed in the Park and that it would deface its beauty, is the further consideration that the two objects of Congress in creating the Park, to wit, the preservation of the game and the forests, would be unattainable should a railroad be allowed within its limits. I think the Department should strenuously oppose the project. If the parties interested in the mines really are desirous of a railroad, I am satisfied from diligent inquiry that a route from Billings, Montana, to Cooke, is practicable. Such a route would be entirely outside the boundaries of the Park."

By the bill reported by the committee a railroad is authorized to run its line through one of the most interesting portions of the Park. I refer particularly to that part of the route along the Yellowstone River to its junction with the East Fork of said river. To my mind the whole charm of this beautiful and interesting region will have departed when once a railroad is established through it, and "station houses, depots, machine shops" are placed along the route. It is needless to say that the game will be driven off, and the damage to the timber by the increase of forest fires would be incalculable.

By the organic act establishing the Park the land embraced within its boundaries was reserved and withdrawn from settlement, occupancy or sale, and set apart as a public Park or pleasure ground "for the benefit and enjoyment of the people."

The proposed bill, should it become a law, would go far to nullify this provision by allowing an occupancy by a private railroad corporation for the benefit of private interests, while the pleasure and enjoyment of the Park by the whole people would be seriously interfered with.

It is needless to say that the introduction of a railroad would bring with it a settlement along the line of the road, and so practically the whole benefit of the original dedication would be greatly diminished if not extinguished. In my opinion the passage of the bill in question would be a most serious blow to the interests of the Park, and I may state that this opinion is shared by the officers of the Government whose duties are connected with the Park. I refer particularly to Mr. Wear, the Superintendent of the Park; Mr. Arnold Hague, in charge of the geological survey in the Park, and Lieut. Daniel Kingman, of the Engineer Corps, the officer in charge of the roads in the Park.

It is sincerely to be hoped that the bill will not be enacted into a law.
Very respectfully,
W. HALLETT PHILLIPS.