

VALUABLE TO FARMER

Hawks and Owls Destroy Many Voracious Rodents.

Ferruginous Roughleg is One of Our Largest and Most Beneficial Birds, as it Feeds on Meadow Mice and Other Mammals.

(Prepared by the United States Department of Agriculture.)

According to biological authorities of the United States department of agriculture, certain hawks and owls are of value to the farmer in destroying voracious rodents. Notwithstanding the deep-rooted prejudice against these birds, it is the belief that the good they do overbalances the evil.

Hawks and owls may be divided arbitrarily into four classes:

1. Species wholly beneficial.
2. Those chiefly beneficial.
3. Those in which beneficial and harmful qualities about balance.
4. Harmful species.

It should be stated that several birds of prey belong to one or another class, according to locality. A hawk or owl may be locally injurious because at that place mice, squirrels, insects and other noxious animals are scarce, and consequently the bird is driven to feed on things of more or less value to man, while in other regions where its natural food abounds, it does absolutely no harm. A good example of this kind is the great horned owl.

To the wholly beneficial class, the squirrel hawk or ferruginous roughleg and the four kites—the white-tailed kite, Mississippi kite, swallow-tailed kite and everglade kite—belong.

The chiefly beneficial class contains a majority of our hawks and owls, and includes the following kinds: Marsh hawk, Harris hawk, red-tailed hawk, red-shouldered hawk, short-tailed hawk, Swainson hawk, broad-winged hawk, Mexican black hawk, Mexican



Copper Hawk (Chicken Hawk). Upper Figure, Adult Male; Lower Figure, Immature Female.

goshawk, sparrow hawk, Audubon caracara, barn owl, long-eared owl, short-eared owl, great gray owl, barred owl, western owl, Richardson owl, Acadian owl, screech owl, barnswallow screech owl, snowy owl, hawk owl, burrowing owl, pygmy owl, ferruginous pygmy owl and elf owl.

The class in which the harmful and beneficial qualities balance includes the golden eagle, bald eagle, pigeon hawk, Richardson hawk, Aplomado falcon, prairie falcon and great horned owl.

The harmful class comprises the gyrfalcon, duck hawk, sharp-shinned hawk, Cooper hawk and goshawk.

The rough-legged hawk and the ferruginous roughleg, or squirrel hawk, as it is sometimes called on account of its fondness for ground squirrels, so destructive in the West, are among our largest and most beneficial hawks. The former breeds wholly north of the United States, migrating south in September and October and remaining until the following April. The latter breeds extensively through the great plains region. The winter range of the roughleg is determined more by the fall of snow than by the intensity of cold, the main body advancing and retreating as the barrier of snow melts or accumulates. Meadow mice and lemmings form the staple food of this bird. Lemmings do not reach our territory, except in Alaska, but in the north of Europe they occasionally form into vast, migrating, devastating hordes, which carry destruction to crops in the country invaded. The vole, or meadow mouse, is common in many parts of this country, and east of the Mississippi river, without doubt is the most destructive mammal to agriculture. It destroys meadows by tunneling under them and eating the roots of grass. This mouse also destroys grain and various kinds of vegetables, especially tubers, but probably does even more damage by girdling young fruit trees.

The roughleg is one of man's most important allies against meadow mice, feeding on little else during its six months' sojourn in the United States. It thus renders important service in checking the ravages of these small but formidable pests. The roughleg is somewhat crepuscular in habits, being on the alert during twilight and early dawn, when small mammals are most active. Other mice, rabbits and ground squirrels are eaten occasionally, and some of the older writers

state that waterfowl are captured by this bird, but there is no known instance of its attacking birds. Stomachs of specimens shot in locations teeming with waterfowl contained nothing but the remains of meadow mice.

The ferruginous roughleg is as fully beneficial as its relative, though the character of its food differs somewhat. In many parts of the country inhabited by it, meadow mice, which play such an important part in the economy of the other bird, are scarce or wanting, but are replaced by nearly as destructive rodents, the ground squirrels. Upon these this large and



Sharp-Shinned Hawk—The Enemy of Small Birds and Chickens—Upper Figure, Immature Female; Lower Figure, Adult Male.

handsome hawk wages continuous warfare, and great is the service it performs in keeping their numbers in check. Rabbits, prairie dogs, and occasionally pouched sopers are eaten. The marsh hawk is one of the most valuable on account of its abundance, wide distribution and habits. It is more or less common throughout the United States, and may be easily recognized by its white rump, slender form and long, narrow wings, as it beats untrillingly over the meadows, marshes and prairie lands in search of food. If it were not that occasionally it pounces upon small birds, game and poultry, its place in the first class would be insured, for it is an indefatigable mouser. Rodents, such as meadow mice, rabbits, arboreal squirrels and ground squirrels, are its favorite quarry. In parts of the West the last-named animals form its chief subsistence. Lizards, snakes, frogs and birds also are taken.

Abundant proof is at hand to show that the red-tailed hawk greatly prefers the smaller mammals, reptiles and batrachians, taking little else when these can be obtained in sufficient numbers. If hard pressed by hunger, however, it will eat any form of life and will not reject even offal and carrion; dead crows from about the roosts, poultry which has been thrown on the compost heap, and flesh from the carcasses of goats, sheep, and the larger domesticated animals are eaten at such times.

The red-shouldered hawk, or, as it is sometimes incorrectly called, the "hen hawk," is common, and very valuable to the farmer. It is more nearly omnivorous than most of our birds of prey, and is known to feed on mice, birds, snakes, frogs, fish, grasshoppers,



Great Horned Owl.

centipedes, spiders, crawfish, earthworms, and snails. About 90 per cent of its food consists of injurious mammals and insects, and hardly 1 1/2 per cent of poultry and game.

Danger in Mixing Salt.
There is risk in mixing salt in dry mash, as it is impossible to distribute it evenly. It is injurious to a fowl to eat too much of it. The only safe way is to give it in wet mash. The proper way of mixing is to use about a table-spoonful to a gallon of water. After allowing the salt to dissolve use the water for mixing the mash.

Good Chicken Matings.
Good matings are six to ten hens of the Asiatic class (Brahmas, Cochins, etc.); ten to fourteen of the American class (Plymouth Rocks, Wyandottes, etc.), and fourteen to twenty of the Mediterranean class (Leghorns, Minorcas, etc.).

FABLES IN SLANG

GEORGE ADE

The New Fable of the Lonesome Ride on the Sprinkler.

One pleasant morning the Chief of the Society for Promoting the Importation of Scotch Merchandise awoke after a Balloon Voyage which began 6 Feet below Sea Level in a Rathskeller and finished 2,000 feet above the Altitude recorded by Lincoln Beachey, the Man-Bird.

When he Came To be discovered that the Pillow had climbed over on top of him and was trying to work the Half-Nelson, while a large Pile-Drawer, of the kind used along the Water Front, was beating a rhythmic-al Tattoo on his tender Bean.

He had a Temperature of 102 and his Ears were hanging down. Also, during the Period of Coma some one had extracted the Eyes and substituted two hot Door-Knobs. Furthermore, his Dining Room Floor was covered with a Push Rug.

After he had decanted a miniature Niagara on to the smoking Coppers and removed his Collar and cautiously picked up from the Floor his Stick-Pin and the Watch and the Remnant of the Check cashed at 5 p. m., he felt his way over to the Window and denounced in unmeasured Terms an English Sparrow that had perched on the Sill, merely to annoy him.

In a little while he remembered that he was a Resident of the Planet known as Earth. Soon after that his Name came back to him and then he recalled his Boyhood and the Fact that when he passed the Parsonage the Presbyterian Minister would ask him to pick some of the Lilacs and Snowballs and take them home to his Sister Alice.

From that Point he groped through his Life History up to the Twilight on which the Regulars had arranged a Send-Off for Old Buck, who was



They Saw Him Go Home With a Magazine Under His Arm.

pulling out for Seattle. In order to help Buck to remember them as True Friends, they had covertly planned to get him Stewed to the Eye-Balls and then ship him on to his new Home, spread out in Stateroom B, with long-stemmed Roses laid across the Remains. This form of homicidal Gaiety is perpetrated under the name of American Hospitality.

Our Hero remembered the polite Getaway on the Low Speed with everybody Respectable, after which the Fountains started to gush and Walters began to come up out of the Ground bearing Fairy Gifts of a Liquid Variety. Somewhat later in the Evening he found himself balanced on one Toe on a swiftly-moving Cloud, announcing to the Stars of Night that he was a True Sport.

In other words, he realized, as he sat humped over in the Morris Chair, holding on to the Head, lest it should fall off and roll across the Floor, that he had been Snooted for Fair, Plastered, Ossified, Benzotated, Piped, Pickled, Spifflicated, Corned, Raddled, Obfuscated, Soused and Ory-Eyed.

Six hours before, he had stood on a Table and declared for the Prothod of Man and now he craved but one Companion and that was old Colonel R. E. Morse.

Standing over in the Sunlight by the Window, where he could see the innocent Shop-Girls going blithely to their \$5 a week, he lifted the trembling Right Mitt clear above his Head and then there declared himself to be on the Cart until the great Celestial Bodies should skid in their Orbits and the Globe itself dissolve into Vapor.

Just as he pronounced the Words, "Nov-ER A-gen," he felt a great Flood of worthy Resolutions arising in his new Moral Nature. He would buy a Winchester Automatic and devote the remainder of his wasted Life to shooting up Barkeeps. And when he died, the whole Estate would go to the W. C. T. U.

That afternoon the Survivors of the Midnight Massacre got together at a

Club to compare Hang-Overs and find out what had happened after the Roof fell in.

Our Hero appeared just as the Boy was getting ready to throw a Life Line. He was greeted with a ribald Shout and told to come running and Save Himself.

The Moment had arrived for him to be a Man. Surrounded by Ice and Squirrels and Mixing Spoons and Orange Peel and Jiggers and Jiggers he drew himself together and made the Announcement.

For a Moment they were stunned by the Impact and then every Son of Peoria leaned back and let out a Yowl. To think that a real up-to-date Fellow would pull any of that Old Stuff! A puny Mortal trying to get a Toe-Hold on the Demon!

They told him to forget it and quit his Spooling and remove his Over-shoes and ease a couple of Gills into his Reservoir and try to be a Human Being, however painful the Effort.

He came back with a few Gems from the Family Medicine Book about the Effect of the Accursed Stuff on various Organs. He did not propose to feed himself anything that would cut the Varnish off of Wood-Work. The Hard Stuff had passed out of his Life.

The Cackles died away and were succeeded by looks of Blank Dismay. They saw that one whom they had long regarded as a reliable bench-working Union Lush had turned in his Card and deliberately made himself an Outcast.

They saw him order Vichy and go to it as if it were a Beverage and then they tore up his Credentials and burned his Photograph and told him to go out into the snowy Streets and find a new Home.

He sat back and pulled the Grim Smile which Savonarola wore when they piled the Pagods around him. He was a Martyr and proud of his Job. By the same Token, there is no Brand of Rectitude that grades so pure and spotless as that exhibited by the disinfecting Dove who has not touched a Drop for nearly 24 hours.

They saw him go home with a Magazine under his Arm and then they sat around until all Hours, tapping it up and proggng his Finish. They said he never would last a Week and when he Fell it would be Some Splash.

They began to issue daily Bulletins and watched the Case with much Anxiety because they really liked the Old Scout in spite of his Eccentricities. When they learned, at the End of a Week, that he had played Butter-milk to a Standstill all up and down the Quick Lunch Circuit and was at his Desk every Morning with his Face clean and a Flower in his Coat, they called a Meeting of the Vigilantes and decided that the Joke had been carried far enough.

In the meantime, Our Hero had learned two new kinds of Solitaire and began to call around for a Dish of Tea with some distant Female Relatives who had long supposed him Dead. Along about the Cocktail Hour he would find himself sitting first in one Chair and then in another but he Cashed big every Morning when he awoke and found that Henry Katzen-jammer was not sitting on the Foot-Board making Faces at him.

Only, sometimes he would stop on a Corner and look all about him and up at the Buildings and wonder if the Town had always been as Quiet as at Present.

After he had stuck for a Fortnight the desperate Envoys from the Indian Camp went after him for Keeps. They held it in front of him and splashed it on his Clothes and begged him to step aboard with them and go right up to the 18th Floor.

Probably if they had let him alone he would have come sneaking back into the Reservation to watch the red Whirligigs and pick a few of those Night-Blooming Martinis but when they tried to Stampede him, the old New England Stock asserted itself, so he substituted Rivets for Straps.

He is now the honored Associate of those who play Cribbage in their own Homes and eat Apples before turning in. But if you want to get a Line on his Real Character just ask the Wet Brothers. They will tell you that he wasn't there with the Strength of Character so he simply sank out of sight.

MORAL: The Way of the Ex Transgressor is Hard.

Water-Proofing Concrete.
The United States engineers have long used the following mixture in water-proofing cement: One part cement, two parts sand, three-quarters pounds of dry powdered alum to each cubic foot of sand. Mix dry and add water in which has been dissolved three-quarters pound of soap to each gallon. This is nearly as strong as ordinary cement, and is quite impervious to water besides preventing efflorescence. For a wash, a mixture of one pound of lye and two pounds alum in two gallons of water is often used.

Where Modern and Archaic Mingle

THERE is probably no other city in Europe that presents such decided contrasts as Sarajevo, the Bosnian capital, in which Archduke Francis Ferdinand was assassinated. On the one hand you have great modern governmental buildings, substantial, artistic, clean and well-kept, that would do any nation proud to possess and that serve to tell every comer how Austria kept her word to govern Bosnia for the very best of the province. On the other hand, in the native quarter, you have bazaars and kavanas; you meet with latticed harem-balconies and old, walled-in court yards and fall afoul of deep-hooded women and fezzed and turbaned Mussulmen that take you back to the days of the Arabian Nights. It is a strange irony of fate that in this modern, yet archaic, city the heir to the Austrian throne should meet his nemesis.

But even aside from this recent play of history Sarajevo is of interest. In this city of curious contradictions there exists the queerest department store in the world. Not alone is this so because every man, woman and child in the place is compelled to buy of the great institution, but also for the fact that the most modern systems are intertwined with those of centuries passed. This great department store, which is known as the grand bazaar, is run on the system of individual shopkeepers housed together in one great building. There are as many as a dozen shops of certain sorts and competition has been overcome by the strongest kind of unions—the trade guild—which sets the price of everything and also the minimum to which bartering will bring it. As a result, in Sarajevo there are no professional choppers; for when a Bosnian has stated a price he will not and cannot budge.

The Great Bazaar.
The great bazaar of Sarajevo consists of an intricate labyrinth of lanes, some of them arched, so that but a



STREET SCENE IN SARAJEVO.

feeble light falls on the cobbled floor; others open to the beating sun, and all lined with open, wooden booths, behind which are the storerooms for the wares. The houses themselves are two stories high, built square and coated over with plaster externally. The second story is wider than the first, thus throwing a deceptive gloom on the goods in the shop. Often the belles of the shopkeepers' harem live in the upper story and there are lattices through which they peer down at the shopkeepers. In other sections the loft is also the storeroom and heavy gratings protect it from thieves. In one section of the great bazaar the houses which practically form one immense dwelling, have the first floor of crude, sun-dried brick, while in the center facade of the upper, projecting story there is a little latticed balcony to which ascend the noise and the smells and, often, the dust of the little irregular street. In some sections the house walls are yellow, with a striping of blue about the windows and doors.

Some of the booths are clean and orderly. Others are a mass of filth. In all of them, however, the Turk sits cross-legged in a corner beside a tall, silver flagon of cold water smoking the eternal cigarette. Folks wander by, but he does not seem to care to attract their attention. None of these bazaars does a land-office business, and yet they all exist.

One sees the wares at their best on Wednesday, when the peasants come to town and there is more likelihood of sales. In this great department store it may be said that everything under the Balkan sun is for sale. Shops of every sort are together, but things which we should sell in one class of stores will be found with strange companions here.

is played, until the mass is practically dissolved, when a small flagon of the deep, dark liquor is presented to the guest.

These are just a few vignettes of the common life of Sarajevo. Military reviews, with cohorts of proud Austrian soldiers; simple peasant fetes, with their Kola dances on some green, shopping among the stores, the peer of any in Europe to have one's purchases brought home by muleteer, as were wares in the holy land in the days of the Savior, medley of color; the noises of the criers, the quiet of the residential streets and harems—all these go to make of the Bosnian capital one of the unique spots of all the near East.

For "Summer Bachelors."
An ingenious man in Washington, whose wife has gone to the country, is responsible for the inauguration of a new dish which is not only a novelty to the palate, but which can be prepared at stag parties without being spoiled before it is ready to serve. It is a modification of the old Mexican frijoles, which is the southern equivalent—in a gaudy sense—of the North American baked bean. It can be prepared in a chafing dish.
His recipe is as follows:
A green pepper is cut into small bits, a half-pound of American cream cheese and a can of ordinary kidney beans are put in the chafing dish over a slow fire and allowed to cook until the cheese and the extract from the beans have mingled thoroughly.
"It is impossible," said this "summer bachelor," to go wrong on this dish. It is impossible to burn the ingredients unless the heat from the chafing-dish fire becomes too great—and I have yet to see a chafing dish when the fire got too hot."