Wisconsin School of the Air
Afield With Ranger Mac
October 30, 1939

DESERTED HOMES

Hello Boys and Girls:

Australia has some of the strangest animals in the world. The kangaroo is a native of this island continent. But the strangest of the strange is a creature with a duck bill, a fur coat instead of feathers, four webbed feet instead of two, lays eggs in a nest and suckles its young. It lives equally well on land and water and it has a club like a hen and a hiss like a gander. What is it? - bird, mammal, or reptile? Its nest, made of grasses and leaves, is at the end of a 20 foot tunnel in some bank which is plugged up with earth two or three feet in thickness. This patchwork creature is called the Platypus. Bill like a bird; fur and tail like a beaver's; webbed feet like a duck with claws like a muskrat; lays eggs like a reptile and suckles its young like a mammal. This is an egg laying mammal, themost ancient of all living mammals in the world today. It is a left over from the earth millions of years ago, forgotten by time, a living reminder of what once was. Of course, when it comes to out-of-the-way things, we can find many and many right around us. There's the bat, for instance. It has many of the things that a bird has, yet it does not lay eggs but gives birth to its young, and so is called a mammal - a flying mammal. And the mother bat carries her young about with her suckling at her breast.

Once upon a time when birds were not birds but reptiles, for there seems to be every indication that birds developed from reptiles; well, at that time they laid their eggs on the ground to be hatched by the heat of the sun. There are birds that still do this. In New Guinea there is a turkey that lays her eggs in the warm sand to be hatched out by the heat of the sun. In Australia there is a bird known as the mound bird that lays her eggs in piles of earth, leaves and vegetation and the heat of the decaying mass provides the heat necessary to hatch the eggs. Did you ever hunt mud turtle eggs? They are found buried in a bank of soft dirt or sand. But as birds developed beyond the reptilian stage,

they became warm blooded. You know what is meant by warm blooded? A cold blooded animal, like a snake or a turtle, takes on the temperature of the surrounding atmosphere, while a warm blooded animal maintains a constant heat. This, of course, is supplied by the food it eats. You can see why a cold blooded animal could not hatch its eggs by the heat of its body. Well, when birds became birds and warm blooded, it became necessary for the mother to sit upon the eggs and hatch them by the heat of her body. From the habit of sitting upon the eggs developed the need for nests to keep the eggs from rolling about and to retain the heat of the mother's body, and to provide a comfortable place for the bird to sit during the long tedious period of incubation. And still we find that many of the nests some kinds of birds make are very crude. You couldn't bring a Whip-poor-will's nest to school because the bird makes no attempt at nest building. It simply lays the eggs on the bare ground or the roof of a building and hatches them. The killdeer doesn't do much better. It's nest is simply a depression on the ground with no lining whatever, often made among pebbles or dry sticks that have about the same color as the eggs. Ducks, ruffed grouse, and quail make a similar nest, but they line the depression with leaves and hide their nests beneath a fallen log or under a low bush. The prairie horned lark, which you will see so much along our roads in the winter, builds a simple nest right on top of the ground, out in the open, exposed to the cold winds of spring. It is our first bird to start household duties. You can't bring any of these primitive nests to school. Nor can you bring a woodpecker's nest to school. Push over a rotten stump of a tree and you may find that the cavity near the top, where the wood is still sound, has been the nest of the woodpecker, the bed made of rough bare chips. The chickadee has a similar nest but makes a hair mattress for the six to eight chickadee youngsters. With her bill for pick and shovel, the Kingfisher bores straight into a sheer clay bank and at the end of a six foot tunnel her young are reared on a nest which is made up of fish bones. You couldn't bring these nests to school. Nor could you bring the nest of the cuckoo, or a mourning dove or a heron. These nests are such flimsy affairs that one sweep of the hand would destroy them; mere platforms of interlaced

possible for the bird to bend the twigs into any possible shape. You no doubt have wondered how these twigs could hang together in a nest. Well, that's the reason. But nests of that kind are quickly dissolved and fall to earth. So if you want a deserted catbird's nest for the school museum corner, you must act soon before the fall rains and frosts cause them to break up.

Under the eaves at our house is a robin's nest, constructed last Spring, but deserted by the robins because the English Sparrows made it rather uncomfortable for them. There is roots, fastened to its platform by hardened mud, seemingly in as good shape as when made. I feel as tho I had a part in the construction of that nest because I made a mud puddle which the robins visited, covered their nest material with mud before taking it to the nest, and from which they carried mud to plaster their homes. When the leaves fall from the trees, you will discover robin's nests in many unexpected places, and if you take them now, before the severe weather breaks them up, you can secure a fine specimen for your museum that can be examined and studied.

Probably the most exquisite piece of workmanship in nest construction is done by the hummingbird. It is placed on the top of a horizontal limb and looks like a knot on the tree. So well protected is it by color matching the limb that about the only way to detect its location is by watching the flights of the owner. It is a cup shaped nest, only two inches across, covered perfectly with moss and lichens, fastened with spider webs, and lined with a layer of the finest down. It is a marvel of workmanship, especially when you know that the work is done by just two straight pieces of horn- the bill of the bird. I doubt whether many of Ranger Mac's Trailhitters have ever seen a hummingbird's nest. If you can discover one for your museum, you have made an interesting find.

Another remarkable example of bird craftsmanship is found in the nest of the Baltimore Oriole. These can be found now hanging from the extreme ends of elms and maples. If you take one for your school museum, be sure that you take the branch upon which it is suspended, for the clever way that the suspension strings are tied to the branches is an example of good workmanship. If you follow these suspension strings

into the nest, you will find that they extend toward the bottom, some of them to the bottom of the nest, and all the other materials are woven thru them; such materials as plant fibers, milk weed stalks, cord and horse hairs. Always horse hair is present. Where it comes from, in many cases, is hard to guess. So well constructed are these nests that they endure the blasts of many winters. These nests are not difficult to secure and if you want a fine example of bird craftsmanship, study this piece of weaving done with just two pieces of horn - the bill of the bird. One time I saw a squirrel climb out on a limb, cut off an oriole's nest, and I am sure that he intended to use it in the construction of his winter quarters, maybe a deserted crow's nest.

Next in workmanship and lasting qualities is the nest of the vireo. It, too, is a hanging nest, suspended from the crotch of a bush. It is not as deep as the oriole's, nor does it have the bag shape. But you can tell it because it is suspended from a slender crotch and generally has a piece of birch bark woven into the structure. It is hard to explain why some kinds of birds always use certain kinds of materials. For instance, the great crested flycatcher always uses a molten snake skin in the construction of its nest. The story goes that that is the way it gets its crest. When the young are hatched, the first thing they see upon opening their eyes is that snake skin. The sight fills them with horror, their top feathers stands on end in fear, and as the things done in childhood remain with us, so do these upstanding top knots remain with this fly catcher. Maybe the bird encircles its nest with snake skin to frighten off the enemies; but one thing is sure, it is always used. The fly catcher builds in a cavity of a stump or tree, often a discarded woodpecker's hole.

Last week we remarked that the migrations of millions of birds, how they find their way, is one of the great wonders of nature. That each bird knows where and how to build the right kind of nest, the same that others of its kinds are all building, and to do it without having any training, is, to me, another wonder of nature. The robins born last summer will return and build their nests as nicely as tho they were old hands at the work. And they never got a bit of instruction, at least so far as we know. They are born educated in nest construction.

When we study bird nest construction, and the whys and wherefores of the

homes of birds are made plain, we shall know far more than we do now about these carpenters, weavers, masons and basket-makers who decorate our groves and shrubbery with their skill.

And so our trail comes to an end.

May the Great Spirit

Put Sunshine in your Hearts,

Today and Forevermore -

HEAP MUCH!