jectives enough in their vocabulary to apply to me, and when strong language failed them, in their impotent fury, they fell to pecking the limbs on which they stood, snapped at and broke off the twigs, and even lit on the ground near me and tore up the earth with their bills, perfectly beside themselves with rage.

Although their range in Washington crowds up to the pine belt, evergreen timber does not seem congenial to them. On this account their presence west of the Cascade mountains has not been recorded, as nearly as I can find out, except in the following instance. On October 7th, 1890, in that time of year when non-migrants have nothing to do but to loaf around and kill time, I met a party of about twenty sight-seeing magpies within a mile of the sea shore and at least a hundred miles west of their usual range.

The magpie is a notable bird; but after all, obscurity is the best passport to long life According to Nicollet magpies were once common in Cook County, Illinois, but now they are rare anywhere east of the Rockies. At this rate one might almost be led to think that they must ere long join the bison. Perhaps, however, when it comes to the test. their native cunning will stand them in hand in the struggle for existence even better than it has with the crow.

REPORT OF THE PRESIDENT FOR THE WORK OF 1891, ON THE FRINGILLIDÆ.

The following report has been compiled from notes received from members of the chapter from several states: Messrs. John A. Donald. Decatur, and Chas. D. Oldright, Austin, Texas; Messrs. F. M. McElfresh, Champaign, and F. A. Gregory, Rockford, Ills.; Messrs. C. P. Howe, Waukesha, J. N. Clark, Meridian. and R. M. Strong, Wauwatosa, Wis.; Mr. D. D. Stone, Lansing, N. Y.; Mr. H. P. T. Weathern, West Farmington. Maine; Mr. John H. Sage, Portland, Conn.; Mr. J. W. P. Smithwick, Sans Souci, N. C.,

and from my own observations in Iowa and Ohio. To these gentlemen I desire to express my thanks for their interesting and valuable notes.

A number of interesting questions have arisen as we proceeded with the report. Can we not, in our further study, satisfactorily answer them? Our interest grows in proportion to the effort we expend in study and research. Let us increase our interest.

Carpodacus purpureus. Purple Finch.

Mr. D. D. Stone finds this finch a common breeder in Oswego Co., N. Y. He finds the first nest as early as May 8, and the last as late as June 30. The bird builds preferably in fir, spruce, or cedar trees, but he has twice found nests in apple trees. From three to five eggs are laid. They are greenish in color, finely dotted with dark browns and blacks.

Spinus tristis. American Goldfinch.

There seems to be considerable confusion among observers between Goldfinch and Yellow Warbler. Several records are very evidently for those of the Warbler and not of Goldfinch. The Warbler is strictly a migrant, and does not arrive from the South until the first of May, while Goldfinch is a resident nearly throughout the United States. In winter he appears in plain dress and is easily overlooked, especially since his song gives place to a very sparrow-like "chip." The difficulty is aggravated by the fact that Goldfinch dons his yellow and black summer dress about the same time that the Warblers arrive from the South. Bear in mind that the Yellow Warbler nests in May and June, and that Goldfinch waits until July and August. Don't let these two birds give you any more trouble.

Mr. Stone has found nests in New York as early as July 8; and Mr. Strong in Wisconsin as early as June 10. These are exceptional dates. In Iowa I have never found a nest before the middle of July. The last found was September 6, four fresh eggs.

At Lansing, N. Y., fruit trees are preferred as nesting places, the peach being chosen oftenest. In Milwaukee Co.,

Wis., nests may be found in almost any kind of trees or bushes. In Iowa thistles are first choice, then the young sumac, and lastly the topmost branches of young oaks and elms. Thus the height from the ground may vary from one foot to forty or fifty feet.

The material of the nest seems to be very uniform the country through, with unimportant differences for the different localities. Vegetable fibres, shreds of bark of asclepias, rootlets, grasses, fine leaves, horse-hair, wool, thistle-down in nests made late, and other soft cottony materials are woven into a compact, neat nest.

The nest is usually placed in an upright fork, the tough fibres of the outer nest woven about the branches, securely lashing the nest into the fork. In the tops of trees nests are very firmly lashed.

The usual number of eggs is four. But Mr. Stone has found five not uncommonly, and six rarely. I have invariably found four eggs in the nest both early and late.

In color the eggs are uniform bluish-white, rarely with a tint of green, and never spotted.

The eggs hatch in twelve days from the time they are laid, and the young leave the nest in fifteen days. The young appear and leave the nest in exactly the order in which the eggs were laid; one egg being laid each day.

Late one October I found a nest of Goldfinch in the topmost branches of an oak tree in which were the skeletons and quill-feathers of three young birds. The parent birds were probably killed, or the young drowned or chilled in a severe storm.

Why does Goldfinch wait until July and August to rear its brood, when the other birds nest in May and June, months apparently far better suited to brooding? Here is food for thought and opportunity for investigation.

Poocætes gramineus Vesper Sparrow.

All observers know the Vesper Sparrow, or Grass Finch, or Bay-winged Bunting. It is a common breeder to the North, found only in winter or during the migrations at the South. At Meridian, Wis., Mr. J. N. Clark finds it an

abundant breeder. It is abundant in Milwaukee Co., according to Mr. Strong; "common in western New York." —D. D. Stone; "common in Connecticut."—Sage; and "common in Maine."—Weathern. I have never found it breeding at Grinnell, Iowa; but it is not uncommon at Oberlin, Ohio.

It nests early and late. In Wisconsin, according to Clark, Howe, and Strong, nests may be found with fresh eggs from April 20 to July 15; being most numerous in the middle of May.

The nest is always on the ground, usually concealed by a tuft of grass, a bunch of weeds, or a corn-hill. It is composed of fine grass, a few weed-stalks, and leaves, usually lined with hair and rootlets. Old stubble or sod is a favorite nesting place.

The eggs are from three to five in number, of a pale greenish-white color, sometimes grayish or even pinkish, marked more or less heavily with spots, splashes, blotches, and lines of reddish browns, the lines often appearing blackish. Sometimes the whole egg appears washed with this reddish-brown.

In shape the eggs are usually elongate ovate, varying to short ovate. .83 x .61 is an average size, with very considerable variation.

The period of incubation is thirteen days. The young leave the nest in fifteen to seventeen days.

Ammodramus sandwichensis savanna. Savanna Sparrow.

The range of this sparrow is nearly the same as that of the Vesper Sparrow, but the bird is not so well known. Only Mr. Clark has found it in Wisconsin as a breeder. Mr. Stone finds it common all summer in New York, and Mr. Sage says that it is common in Connecticut. In Iowa it is common in the fields; but I have not met with it in Ohio; it certainly is not common in Lorain County.

Like the last, its nest is placed on the ground, usually beneath a tuft of grass or other shelter; meadow is a favorite nesting place. It is sunken flush with the surface and is rather loosely made of fine dry grasses. I have usually

found nests in rather low places, seldom on uplands.

Mr Stone finds nests most common about May 15. I have found them as early as May 1, and as late as June 15. Mr. Stone records a nest with five eggs June 6. Early nests may contain six eggs, usually five, and late only three. The average set is five. The eggs are a greenish- or grayish-white, very finely marked with spots and dots and small blotches of light brown and lilac, forming a ring about the larger end or becoming almost confluent in a great blotch covering it all over. Incubation lasts twelve days, and the young leave the nest in about fifteen days.

Ammodramus savannarum passerinus. Grasshopper Sparrow.

Although pretty generally distributed over the Eastern United States, the Grasshopper Sparrow does not seem to have been very widely noticed. There are only the records of Mr. Sage for Connecticut, and my own for Iowa. Mr. L. M. McCormick secured three specimens on the Vermillion river bottoms during the season; they were evidently breeding. Mr. Sage calls it "a rare S. R." in Connecticut. He has found two nests. One, June 1, five eggs, the young well developed. Nest in an open, dry field, and not protected by a tuft of grass or weeds. The other, June 6, four eggs. Nest in a mowing lot, on high ground. In Iowa, *passerinus* is one of our commonest sparrows. Nest building begins the second week in May, and fresh eggs are frequently found in July. First sets sometimes contain six eggs, July sets almost invariably only three. Five is the normal number. It is very common to find single eggs of *passerinus* lying upon the bare ground.

The nest is made in a slight depression made by the birds, usually beneath a tuft of grass or weeds. It is composed almost wholly of fine, dry grass, seldom lined with a few hairs. Early in the season it is frequently arched over, and is very pretty. Later it is a plain, flat nest.

The majority of nests are in lowlands, *not* wet lands, or on side hills sloping to depressions. A very small percentage are on the hill-tops. The bird flushes finely from the

nest, always betraying its position. Sometimes she will sit until one is almost past or upon her before flushing.

There is little danger of mistaking this bird's eggs for those of any other. They do not resemble eggs of any other sparrow in shape or general appearance. Most eggs are short ovate, appearing plump and full at the larger end. They are of a pure white color, slightly polished, and rather sparingly spotted, dotted, and sparingly blotched with reddish browns, mostly around the larger end, often in the form of a ring. The markings are never so heavy that the ground color cannot be easily seen.

The period of incubation is twelve days, and the young leave the nest in fifteen days. When hatched they are covered with dirty looking down. For a fuller account of this bird's habits, see O. & O. S. A. Vol. I, No. 2.

Ammodramus henslowii. Henslow's Sparrow.

No one seems to have noticed this bird except myself. Even the books find little to say of it. In Iowa it is common in the fields. The first arrivals from the South are always found in the underbrush skirting native woods. Later they move out to their prairie homes, just as the Grasshopper Sparrows are arriving from the South. Their weak little voice will not be heard among all the rest unless one listens very attentively for it.

Soon after its appearance on the prairies nest building begins, about the middle of May. I found a nest with eggs nearly fresh May 25. So few have been found that no exact dates can be given. From unmistakable indications we would be safe in saying that nests with eggs may be found as late as July 10.

The nest is placed on the ground, usually in a slight depression, and has for a shelter a tuft of grass or bunch of weeds. The material is fine dry grass, with a few hairs frequently. The use of feathers is accidental, as they are evidently from the mother bird's breast, and are not built into the material of the nest.

The eggs resemble those of the last species, but usually have a greenish or grayish tint with brown markings not

so large. The average size is .75 x .57, thus being rather smaller than those of *passerinus*.

Chondestes grammacus Lark Sparrow.

In the preliminary report on the sparrows I mentioned this bird as not common in Oberlin. I have since learned that it had not thus far been taken in Lorain County, but that it had been found within the state.* Its home is the Mississippi Valley, from which there are some very full notes.

It is interesting to note how different the nesting habits of these birds are as we pass from south and west to north and east. Messrs. John A. Donald of Decatur, and Charles D. Oldright of Austin, Texas, have sent in very full notes, so that we are able to make a careful comparison. Mr. Oldright says, "nests are sometimes on the ground sunk to its level, and concealed in a tuft of muslin weed or other plants; but this is not so frequent in Travis County as in less wooded localities. Here nests are found in bushes and trees, usually not less than six feet high, and sometimes as elevated as thirty feet. Of the twenty-eight nests by Mr. Donald twelve were on the ground in the open prairie or field, fifteen in trees or brush or vines, while one was on top of a post under a cotton platform. Of the twenty-eight nests, sixteen were in the prairie, seven in the timber belt, five in the city of Decatur, one nest was in an elm tree, fifteen feet up, overhanging a road. Three were within a few feet of public roads, three were placed in door yards. The average of those placed above ground was seven feet. In Iowa nests are invariably on the ground, sunk flush with the surface, sometimes concealed in a tuft of grass or bunch of weeds; often in the open with no attempt at concealment.

The fields of fall-plowing are favorite resorts early in the season. I have very frequently found nests early in May, as the ground was being worked the first time. After the corn is well grown, late in June or early in July, nests are

*On May 20, 1892, Mr. L. M. McCormick took several specimens on the Vermilion River bottoms.

placed at the foot of a corn-hill. All of the nests that I have found have been in fields or meadows.

In Wisconsin Messrs. Strong and Clark find nests always on the ground, sunken to its level, in pastures or fields. Thus the habit of building above the ground is peculiar to the south and west. The difference is not due to a greater scarcity of timber at the north and east, for there is fully as large a proportion of timber to prairie there as in Texas. Let some one study out the reason.

Mr. Donald describes a typical nest as, "tolerably bulky, composed mostly of muslin weeds, with a little grass; lined first with rootlets, then with horse-hair." He has found but three nests which did not contain muslin weed. Two of these were composed of grass and weeds, and lined with rootlets; while the other was on the ground and composed wholly of grass. "The soft, cottony muslin weed seems to be a characteristic of this specie." Mr. Oldright describes the nest as composed of about the same material, but does not consider it bulky, but rather compact. He finds that those made on the ground are much slighter and looser. Mr. Donald finds that during the early part of the season nests are almost invariably in trees or bushes, while in June they are mostly on the ground. A point well worth noting.

In Iowa and Wisconsin the nests are made of weed stems, dry grass, and rootlets; always with a preponderance of rootlets. The nests are not compactly built, but strong enough so that they can be easily preserved. Often no other material than rootlets is used.

In Texas the birds rear two broods. The season extends from April 15 to June 22. Mr. Donald's earliest nest was April 18; Mr. Oldright's latest June 15. In Iowa and Wisconsin two broods are raised; the first nest May 1, the last July 10. Thus at the south the birds are more forward in spring.

The average set in Texas contains four eggs. Of twenty-seven sets found by Mr. Donald eleven contained five eggs, thirteen four, and three three; all known to be com-

plete sets. Mr. Oldright says, three, four, and five constitute a set.

In Iowa I have never found more than four. But in Wisconsin Mr. Clark has found five in a nest.

A series of eggs collected by Mr. Donald show an average of .79 x .61. The largest is .86 x .64, the smallest .62 x .50 which is evidently a runt. The next smallest is .75 x .58. Sets taken in central Iowa show an average .76 x.54. Thus Iowa eggs are more spherical and smaller. In shape they are short ovate

The ground color is pearly white marked with a few pin points of black to heavy smudges of red umber. The scratchy, wavy lines are generally characteristic, according to Oldright. Iowa eggs are much the same. The markings are usually confined to the large end, and never heavy enough to obscure the ground color. The blotches, scratchings, and pencilings are usually clove brown, with blotches of lavender appearing as shell markings.

The period of incubation is twelve days, and the young leave the nest in fifteen or sixteen days.

Spizella socialis Chipping Sparrow.

This bird is almost too well known to require consideration here. But it may be interesting to compare dates of nesting in the different localities. Chippy does not breed in Texas. But in North Carolina Mr. Smithwick says that the first nest is made the first of May, and the last to be found the last of June. In New York, according to Stone, the first nest is made May 10. In Iowa the first nest found was May 1, the last June 10. In Wisconsin Clark found the first nest May 15, Strong first week in May. The last one found by Mr. Howe was June 20. In Maine Mr. H. P. T. Weathern says that Chippy does not begin to build till late in May. Nests may be found as late as July 1. Thus the southern birds are several weeks earlier than the northern.

Chippy builds his nest above ground, rarely as high as thirty feet, usually about six, in trees, bushes, shrubs, and vines. Mr. Strong says that the nest is sometimes placed

on beams of buildings. I have found more nests in ornamental shade and garden trees than anwyhere else. The social habits of this sparrow lead it to appropriate the artificial shrubbery in lawns and nesting sites. It is very interesting to note with what regularity and precision birds will return to their old nesting tree or shrub and build a gain their new home within it.

The nest is made of much the same material the country through. It gives the impression of being rather frail, with only dry grass and a lining of long hairs; but in fact the nest is quite durable and compact. Often nests are wholly made of hair. And it is worth noticing that the long hairs from a cow's tail are more commonly used than horse-hair.

Chippy lays four eggs usually, rarely five, late in the season only three. It is one of the birds most imposed upon by the Cowbird. I have several times found three eggs of Cowbird in one nest with only two Chippies' eggs.

The eggs are a uniform greenish blue or bluish green, sparingly speckled and spotted with blackish brown and purplish, chiefly around the larger end. Mr. E. B. Peck gives the average measurements as .69 x .50, which is the average for Iowa.

Mr Clark says that the period of incubation is thirteen days, and that the young leave the nest in ten days. We might expect a period of only twelve days with so small a bird.

Spizella pusilla. Field Sparrow.

The breeding range of Field Sparrow seems to be farther south than that of Chippy. Mr. Oldright finds it a common breeder in Travis County, Texas, while Chippy was only a winter visitor there. The notes represent it as occurring in every locality as a breeder.

In Texas it begins to breed April 15, and continues till May 15. In North Carolina the first nest may be found the first week in May, and the last one the last week in June. In Iowa the first nest is May 10, the last July 10. In Wisconsin the first is a little later—May 20, the last June 28. In

New York Stone records the first nest May 1. In Connecticut Mr. Sage gives the first nest May 19.

In Texas, North Carolina, New York, and Iowa, nests are above ground at all seasons, either in grass, weeds, bushes, or trees, usually not more than two feet, often only a few inches; Mr. Smithwick records one nest in a cedar, thirty feet up; this is very unusual. In Wisconsin all three observers say that the first nest is placed on the ground, later ones in grass or bushes. Mr. Sage says that nests are usually on the ground, sometimes in bushes. There seems to be a tendency for the birds to seek the ground at the north and shun it at the south. Can weather be the cause?

In any situation the nest is made of about the same materials, in the same manner. Small weed stems, dry grass, and long hairs from a cow's tail are the regulation materials, all woven into a neat nest. Often a few leaves may be used. But downy and cottony substances are avoided. The location chosen is usually in the vicinity of a woods, in the brush and shrubs skirting it. Mr. Oldright finds that in Travis County, Texas, this sparrow is confined to one small tract near Austin.

Field Sparrow lays from four to six eggs, average five, according to Clark; three to five, average four, Strong; four average, Howe; three to six, average five, in Iowa; three or four, average four, in Texas, Oldright; two to four, average three, in North Carolina, Smithwick; three to four, average four, New York, Stone; three to five, average four, Peck; three to five, average four, in Connecticut, Sage. Cowbird frequently inposes upon this sparrow. Two broods are raised in most localities.

In color the eggs are buffy, clay, or often greenish, white, rather thickly spotted, blotched, and washed, with several light shades of brown, and lavender; the markings being more pronounced and thicker at the larger end, sometimes, becoming confluent so as to hide the ground color. The eggs are rather elongate, oval, or ovate, in form. They

vary from .62 to .72 in length by 50 to .55 in breadth. The average is about .68 x .53.

The period of incubation is twelve days, and the young leave the nest in twelve or thirteen days.

Melospiza fasciata. Song Sparrow.

The range of Song Sparrow seems to correspond very nearly to that of Chippy. It is not found breeding in either Texas or North Carolina. Even in Iowa it is not common in summer in the central portion. In Wisconsin, Iowa, New York, Connecticut and Maine, it is common all summer. In Wisconsin Mr. Clark found the first nest May 12, last July 12; Howe May 17, first; Strong May 3. first, eggs slightly incubated last week of July, the last. In Ohio May 10 is the first date. In New York, April 22, Stone. In Connecticut, May 17, last June 16, Sage. In Maine, May 20, Weathern.

Song Sparrow builds its nest either on the ground or in trees or low bushes Mr. Weathern has found nests "in a hollow place in a tree, four feet up." Mr. Clark says, "the first nest is on the ground, the second in willows." Strong finds some in brush piles and weeds. In Ohio I have found them only on the ground, and in Connecticut Mr. Sage finds them only on the ground. They are seldom many feet above ground in any locality.

The nest is made of weed stems, leaves, grass, and lined with fine grasses and hair. The nest is not very compactly made; the outer layer of leaves and weed stems falling off.

The eggs range from three to six in a set, usually five. They vary so greatly in coloration that only a general idea can be given of the general appearance. Some are pinkish white, running through, greenish white to light bluish green. The coloring is usually in rather heavy blotches, with a few spots and splashes of several shades of dark brown, all so heavy that the ground color is obscured or hidden.

In size they average .73 x .57, varying a few hundredths each way. Thus they are ovate in shape, almost oval.

The period of incubation is thirteen days. I have never been able to study carefully the full history of Song Sparrow.

Melospiza georgiana. Swamp Sparrow.

The range of Swamp Sparrow is rather more northerly than that of the last. It does not occur in Texas and North Carolina as a breeder, nor in central Iowa. I have not found it at Oberlin, Ohio, though I presume it may be found in the swamps on the lake shore. In Wisconsin it is common in summer, according to Clark ; and abundant according to Strong. There it begins to build the last week in April, and eggs may be found as late as the first of August. In New York the first nest was May 2. Mr. Sage records no nest from Connecticut, and the bird is unknown to Maine observers.

As its name suggests, it is preeminently a bird of the swamps and lowlands, building its nest on the ground, among the rushes and sedges which abound where water stands. The nest is made of rushes, dry grass, and hair, after the pattern of Song Sparrow ; and its eggs so nearly resemble those of that species that it is often difficult to distinguish between them ; they are, however, usually more clouded, and the marking more indistinct. In size they average .76 x .59, thus being larger than eggs of the last species. The number of eggs in a set ranges from three to five ; usually four.

The period of incubation is thirteen days.

Pipillo erythrophthalmus. Chewink, Towhee.

Towhee is not known south as a breeder. Messrs. Clark, Howe, and Strong find it common in Wisconsin. In Iowa and Ohio it is very common. It is fond of woods in which underbrush is rank, and in little copses of brush. A brush grown clearing is a favorite resort.

Building begins May 1 in Iowa and Ohio. This spring I found a nest containing three of Chewink and two of Cowbird, May 7. The eggs were addled. In Wisconsin nesting begins a week later than in Iowa. July 1 is a rather extreme date for fresh eggs.

The nest is placed on the ground preferably at the foot of a bunch of brush or weeds, or at the foot of a tree against which leaves have drifted. I have found a few out in

an open orchard, on the ground, and a few four to six feet up in bushes.

Nests are made largely of dry leaves, with a lining of dry grass, with a few hairs and feathers occasionally. The few nests in bushes had a foundation of small twigs.

The average set contains four eggs, often three; rarely five complete a set. Mr. Strong records a nest found May 28, '88, which contained one normal egg of Towhee and one runt, with four of Cowbird! I have often found two and three eggs of Cowbird in Towhee's nest.

The eggs are usually whitish, sometimes pinkish or bluish in color, profusely and quite evenly spotted, blotched, and splashed, over the entire surface, with browns of a pinkish shade. Often the markings are so heavy that they obscure the ground color, making the egg have a pinkish appearance. In size the eggs average .96 x .72.

Cardinalis cardinalis. Cardinal Grosbeak.

This is a southern bird, not reaching central Iowa, but found in Ohio rather commonly as a resident. We are indebted to Messrs. Donald and Oldright for our notes, as I have never taken a nest in Ohio.

In Texas nest building begins about April 1. Mr. Donald records the first April 8, one egg; but a nest containing four young April 20. His latest is June 30, incubation slight. He says two broods are raised.

The birds place their nest in trees or bushes, usually trees. Of fourteen nests found by Mr. Donald seven were in oak uplands, six along prairie branches of streams, and one in the city in a honeysuckle vine covering a summer house. The highest was eight feet, lowest two, average five. He says, "Cardinal, as a rule, builds his nest in some bushy tree or bush, generally concealed, though I have found them in public places."

"A typical nest is bulky. First, a large network of small briars and other twigs; second, the nest proper, composed of the inner bark of grape vine, leaves and grass, and root lets; the grape vine bark being characteristic. The nests are usually well built, but sometimes frail."

Of twenty-one sets examined one contained five eggs, twelve four, eight three. Mr. Oldright records one set of five, and several taken by Mr. N. Y. Benedict in Young County, first nests four, later three. A series of eggs shows an average of .93 x .69, the largest 1.05 x .68, smallest .75 x .59, probably a runt.

The ground color of eggs varies from a white, to a greenish or bluish, even to a brown tint. The markings are reddish brown, lavender, and lilac, often pretty evenly distributed over the entire surface, sometimes confined to the larger end, there becoming confluent in a blotch.

Habia ludoviciana. Rose-breasted Grosbeak.

This is another northern species, breeding commonly in Iowa and Wisconsin, not so commonly in Ohio. Messrs. Clark and Strong list it as abundant in Wisconsin all summer.

Nesting begins about May 20. Clark gives the first nest May 24, Strong May 20, last July 9. Of the position of the nest, Clark says, "Nest in upright fork of slender sapling." Strong says, "Nests placed from eight to twenty feet up in crotches of small trees and forks of limbs of larger trees." I have found many nests in grape vine thickets and on horizontal branches like nests of Scarlet Tanager.

Strong says of the composition of the nest, "Nests are made of small sticks, twigs, weed stems, straw, dried grass, etc Most of the materials used are too stiff and brittle to be bent, so the ends of the twigs are left sticking out at all angles." Iowa nests are made of light colored material, often of a small vine woven neatly and compactly. A few grass and weed stems are often used, but no twigs are ever seen. The whole structure is so thin that the eggs can be seen from beneath. There is no attempt at fixing the nest in its position, so it is frequently tipped over or tilted.

A nest complement is three to five, usually four eggs. The eggs are a greenish blue or bluish green, more or less spotted and blotched over the entire surface with reddish brown and lilac shell markings. The markings seldom be-

come confluent. The average measurements are .98 x .73; largest, 1.05 x .71 : smallest .92 x .62.—Strong.

Passerina cyanea. Indigo Bunting.

The notes relating to this bird are very scanty. Mr. Oldright says that it breeds rarely in Texas, and Messrs. Clark and Strong find it tolerably common all summer in Wisconsin. It is common in Iowa, less so in Ohio. In Iowa it begins to build about June 1. The first nest with eggs was found June 6, the last July 10.

The nest is placed in low bushes or bunches of weeds or grass from three inches to four feet up. It is made of weed stalks, coarse grass, and leaves, lined with finer grass. The weed stalks and leaves form a deep foundation, and the other material is placed upon it.

The average set is four eggs, late in the season only three. The eggs are whitish with a bluish tinge, often quite blue, often almost cream white, and are very rarely spotted with brown. They measure .75 x .52. Period of incubation twelve days.

Passerina ciris. Painted Bunting, Nonpareil.

The Nonpariel is a bird of the South, being found only by Texas observers, where it is common. Mr. Oldright found the first nest May 15; Mr. Donald the last June 22.

The nest is placed in a small bush about three feet up, and resembles that of Field Sparrow, Mr. Oldright says. "It is composed of large white lichens and heads of a small plantain fastened together with spider-webs on the outside, grass on the inside, and lined with rootlets"—Donald.

Four eggs make a set. They are white or bluish white, speckled, spotted, and blotched with brown, chiefly at the large end. Four sets collected by Mr. Donald average .67 x .50.

Spiza americana. Dickcissel.

Better known as Black-throated Bunting. It has an extended range north and south, breeding from Texas to Minnesota. I have never found it in Ohio.* Mr. Strong

*Since the above was written Mr. L. M. McCormick has found it breeding on the Vermilion River.

record s one from Wisconsin. (WILSON QUARTERLY, Vol. iv. No. 1, page 34.) Both Texas observers find it abundant. In Iowa it is the most abundant bird.

Mr. Oldright found the first nest May 1. Donald May 20, incubation advanced. In Iowa the first nest May 15; the last August 10. Two broods are raised.

Mr. Donald has never found a nest on the ground, all being in grass, weeds, or bushes, from two or three inches to three feet up. Mr. Oldright says that nests are either on the ground or in bushes up to ten feet above ground. I have found but few nests on the ground; one was in an apple tree, twenty feet up. Usually nests are in low bushes, weeds, or grass, in copses, or neglected fields.

Nests made early in the season are composed of leaves, grass, and weed stalks, lined with fine grass, sometimes with a few rootlets and hair. Later nests, those made in July, are almost wholly made of the dead stalks of the Shepherd's Purse; looking much like nests of Rose-breasted Grosbeak

The eggs are four to six, commonly five, in number, in Iowa, four in Texas. In color they very closely resemble eggs of Bluebird, being light blue unspotted.

Texas eggs average .82 x .61, with a variation of .06 x .04.

In Iowa eggs average .81 x .60. Incubation is completed in thirteen days.

Guiraca cærulea. Blue Grosbeak.

Both Texas observers have found this Grosbeak rare in Texas. Mr. Donald has collected two sets of eggs. One was found June 4, the other May 25.

One was in a Black Jack bush, in the edge of a cotton field, three feet up; it contained four eggs. The other was in the same kind of a bush in the timber in oak uplands, two feet up; it contained two eggs. Both were three miles from Decatur.

The nests were made of weeds, grass, leaves, corn husks, and paper fastened together with spider-webs, and lined with fine rootlets and horse-hair.

In size the eggs average .88 x .63; smallest, .87 x .62; largest, .91 x .64. They are plain, light blue, rarely spotted with lilac shades.

The following are a few species which have been found breeding by one or two observers. No comparison can be made, as there are not notes enough from different sources.

Spinus psaltria mexicanus. Mexican Goldfinch.

Mr. Oldright reports it as a rare breeder at Austin, Texas; he has never found a nest. At Mason, Rev. Ira B. Henry has found it common. (*Mississippi Valley Bird Migration*, page 183.)

Zonotrichia albicollis. Peabody, White-throated Sparrow.

Mr. Stone mentions a set of four taken by Mr. E. S. Bryant, at Phœnix, N. Y.

Zonotrichia leucophrys. White-crowned Sparrow

Mr Weathern reports this sparrow as common in Maine, breeding in swamps and thickets.

Amphispiza bilineata. Black-throated Sparrow.

According to Oldright it is rare in Texas as a summer resident.

Peucœa cassini. Cassin's Sparrow.

"In Texas it is common in summer, resorting to mesquite thickets."—Oldright.

We have seen that Lark Sparrow nests in bushes and trees at the south and west, but on the ground at the north and east; that not a few of the sparrows which make two broods build the two nests in different positions or of different material. The fact has been discovered before, but the why has never been found out. Let us make this our work. Only the surface of ornithology has yet been scratched; we must dig deep into it and find there the hidden treasures.

LYNDS JONES.