

bird, particularly of a large bird, is, as we have shown above, an extremely efficient instrument, capable of immediate adjustment to derive the maximum advantage from every movement of the air, so that a very slight upward draught may yield it considerable lift.

In any case, it seems wiser to go as far as we can with explanations in terms of known physical laws, rather than to postulate forces of which we know nothing, and which, if they exist, we have little chance of discovering.

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*University of California, July 1, 1922.*

#### A NATIONAL BIRD DAY

By ALTHEA R. SHERMAN\*

IN *Iowa Conservation* for July-September, 1921, we find a set of resolutions, adopted at the Annual Summer Convention of the Iowa Conservation Association. Among the resolutions, is one that reads as follows: "That we are in sympathy with the movement to make April 3, John Burroughs' birthday, a National Bird Day." Some of us may not be in entire sympathy with such a movement, therefore the present seems the time to voice our objections, and not to say them with flowers.

Those of us, having three hundred and sixty-five days in every year that are more or less bird days, certainly can not object to others having one day

\*With the permission of the author this article is reprinted from the *Iowa Conservation*, April-June, 1922. It is so good, and touches on so many questions of the day so directly, that we hereby break our rule not to give space in *The Condor* to matter already printed.—EDITORS.

each year to devote to the birds. We would urge rather that they, too, enjoy the birds daily.

Birds are not the only objects of interest and beauty about us, and the student of each subject, whether plant or animal, organic or inorganic, may rightfully claim that a day be set apart for his chosen study. One man delights in the study of birds, while another man may be equally devoted to that of butterflies; another's interests are in ants, still another's are in bees; wasps and spiders both have their devotees; each family of aphids may have its research students. One man may specialize in dragon-flies, or crickets, or grasshoppers, and yet another man in water-striders or caddis-worms; the plankton of our streams also has its specialist. Surely we can not be selfish in this matter of national days, but must plan that the specialists in botany and entomology each has a day set aside for his pet study. These would take somewhat more than two hundred of our days, leaving a paltry one hundred and fifty days for all the other important and delightful studies in nature.

These may not leave enough days for all rightful claimants, since geologists, paleontologists, meteorologists, mammalogists, malacologists, ichthyologist, herpetologists, helminthologists, parasitologists, and a host of others are entitled to numerous days for the objects of their special studies. Of the mammals of the sea, of the earth, and of the air, only the woodchuck has his appointed day. While deliberating on setting apart special days for all interesting objects in nature no one should forget the soulful arguments of the Missouri legislator, when he pled for making ground-hog day a legal holiday, but failed in his attempt. Taking warning from his failure, would it not be well at the very start to plan to have all these days made legal holidays?

If the birds have their national day so should the bats have theirs. They are our only mammals that on the wing might be mistaken for birds. Their habits are quite as interesting, though harder to study. And the lowly worm also must be exalted, if for no other reason than that it constantly dwells in such close companionship with us. Who can tell how many species of worms he entertains within his corporeal frame at this very moment? Helminthologists say that of various species of nematodes alone inhabiting the bodies of mankind, "practically a half hundred have been enumerated"; that among such nematodes are the guinea-worm, the hookworm, and the several species of filaria. Meanwhile, parasitologists, busy in their research work, pause an instant to tell us that they have found in man "many species" of intestinal protozoa, and they assure us that many more are likely to be discovered. Clearly somewhere we must squeeze in a day for these protozoa, and our bodily self-respect demands another day for the worms.

If we can take our eyes from the birds long enough to look about a little we may see thousands of things in nature, which have thousands of learned men studying them in minute detail. We may note that in the year 1910 there were published forty books and articles on ants, and that 1317 was the number of pages contained in them. When we are ready to establish a national ant day, we have one or more of the world's greatest myrmecologists whose birthdays may be celebrated. There are in America upward of six hundred self-confessed botanists, and fifty-five others have died within the past twenty years. Sixty-three per cent of the living are teaching, most of them in our colleges and universities; the greater part of the remainder are occupied with investigations in botanical gardens and experiment stations. According to

Cattell's Directory, ninety-one of these botanists have been starred, which means that they are ranked among the first thousand of America's most eminent scientists. Two-thirds of these eminent men are teachers. They are opening the eyes of people to the wonders of plant life, not once or twice a year, but daily throughout the college year. As it is in botany, so it is in entomology; hundreds of research entomologists are bending their best efforts to the intensive study of man's worst foes and teaching him how successfully to combat these enemies.

Certainly we must consider him an exceedingly mean and narrow-minded man, who would advocate a national day for birds, while refusing to urge with equal vigor that we observe national days for the whales and manatees, for orchids and slime molds, for lady-bugs, lizards, and tree-toads. If then every one is agreed that along with the three-hundredfold other national days for nature study objects there shall be one for birds, the next step will be to select the day. Since the ground-hog is the only creature that already has a day consecrated to it, our choice is almost unlimited. The selection of a day suitable for all parts of our country appears no easy task, since a day desirable for Porto Rico might be exceedingly untimely for Maine, and the same might be true of Arizona and Alaska.

In northeastern Iowa my daily records, for a series of years, show that on April 3 the average number of bird species seen has been eleven, and the average morning temperature has been 35 degrees. Additional comments on the weather have included such items as these, "ground frozen hard," "howling snow storm", winds that were "sharp", "keen", "searching", "a poor bird day". Only on one day are there indications that the weather was pleasant for enjoyment out of doors. However, personal testimony is not necessary. For nearly forty years, beginning with Professor Wells W. Cooke's organized investigations of bird migration in the Mississippi valley, and later similar investigations covering our entire country, conducted by the Bureau of Biological Survey, have given us a pretty clear knowledge of the northward movements of the birds in spring. Of the seventy species and subspecies of warblers occurring in the United States only, a scant one-fourth of them have been observed north of our southern borders before April 3. By that date the first small wavelet of warbler migrations begins to break on our southern shores. Some of the thrushes begin to arrive in Louisiana and Florida, to join their "hermit" cousins that have spent the winter in our southern states, and with them there comes to our extreme southland the first of many species, among them the first of several species of the small flycatchers, several of the vireo species, three species of the orioles, and the night-hawks, while very soon after this date these species are joined by the bobolink, the indigo bunting, the rose-breasted grosbeak and the cuckoos. All of these arrivals pertain to our extreme southern borders. From a month to six weeks must elapse before a half of our population can greet these returning friends.

The most weighty argument for the establishment of a national bird day seems to be that it would afford a special time for calling the attention of school children to the birds. For such purpose, in nearly one-half of the United States, the third day of April is but a trifle better than the third day of January, February, or March. If the genuine bird student could have but a single

day in the year to spend with the birds can there be any doubt that he would not choose some day in May? Then why should we select the third day of April for a national bird day, except because of its proximity to the first day of April? That pure fountain of information, the almanac, gives us no special folly for April 2. Yet is there any good reason why the first three days of April might not be devoted to a high carnival of folly, wherein we could work foolishness out of our systems and be ready for serious business and common sense during the remainder of the year?

Glancing once more at the resolution under consideration we may note that it reads "April 3, John Burroughs' birthday." Why choose a most unseasonable day because it was John Burroughs's birthday or any one's birthday? Are not the birds of themselves sufficient incentive? Yet if we *must* have a birthday, why not select that of some one of the hundred men, who each has done for the birds a hundred times as much as did John Burroughs? Undoubtedly those of them now living would strongly object to such vulgar publicity, and it is to be hoped that innate modesty in John Burroughs would have forbidden such a movement had he been alive. It certainly would have done so had he possessed a true estimate of his contributions to ornithology, when compared with those of our master workers in that science. If we are not anxious to stultify ourselves in the eyes of other nations as well as in the eyes of generations yet to come, caution should be exercised lest "a national bird day" becomes a byword, a subject for ridicule along with our ground-hog day.

It may be that the ambition of John Burroughs at the beginning of his career was to become a successful literary writer, the producer of literature in its best form. If so, his success must have exceeded the most ambitious dreams of youth. So great was the mastery of his art that beneath the magic of his pen the charm and interest of any subject were most delightfully revealed. Had he chosen to discourse on such homely themes as those of the hairpin or toothpick instead of nature, his readers would have been equally well pleased. It seems a pity that he never told the history of a hairpin from the time it left its native bed of iron ore in the Mesaba Range until it reached my lady's boudoir, together with the manifold uses she has made of it from pinning in place her golden locks to the mending of a harness, that broke when she was driving on an unfrequented country road. Had he done so there might have been a movement for the national establishment of a Burroughs hairpin day instead of a Burroughs bird day.

It ought to be clearly evident to all readers that were there no birds, the eminence of John Burroughs as a writer would not have been diminished in the least, for he wrote most entertainingly on many subjects. Some of his finest things were said about plant life, about trees, shrubs and flowers, yet there is no wild scramble among our six hundred scientific botanists, which include the ninety-one men eminent in science, to push John Burroughs to the extreme front and to establish a Burroughs blossom day; he wrote about ants, bees, wasps, and other insects, yet there is no crowding forward of our six hundred scientific entomologists, which include some of the foremost scientists of the entire world, demanding a national Burroughs bug day; he wrote frequently concerning geology yet our numerous geologists are silent about establishing a Burroughs boulder day. Well might they claim such a day, since

by him a rock was always called a rock, and a stone was called a stone. He would not have tolerated the statement that "a boy threw a rock through the window of a rock house" though recently there is a common tendency toward such loose language; he wrote about various mammals, about the skunk, weasel, rabbit, squirrel, chipmunk, dog, cat, cow, horse and sheep, yet mammalogists do not clamor for a Burroughs buck day; he wrote most charmingly about journeys to Alaska, Hawaii, the Grand Canyon of the Colorado, and the Yellowstone National Park, also about his friends, John Muir and Theodore Roosevelt; he wrote most kindly and quite often about birds. A very, very few of these things about birds were new to science, such as the flight song of the ovenbird, and the first accounts of the nesting of the black-throated blue warbler and of the mourning warbler. He was a shrewd man: he did not call himself an ornithologist, and the genuine ornithologists have never shown any inclination to crowd the title upon him.

To ornithologists, professional and amateur, the world owes most of its knowledge of American birds. They have discovered the birds, named them, described them and their habits. They have given most generously of their time and labor, and sometimes have given their lives in the cause of the birds. They have organized ornithological societies, which support magazines in which have been published thousands of articles on birds all of which have been free gifts from the authors. To one of these societies, the American Ornithologists' Union, belongs the credit of starting the movement for bird protection, and another society, the National Association of Audubon Societies, has carried forward the work, until there is hope that the species of birds now remaining in America will be saved from extinction. This great work has been accomplished by the devotion and sacrifices of a comparatively small number of our people. The funds for bird protection have been given by a few thousand individuals in sums ranging from fifty cents to \$900 annually. In all this work, so far as I can learn, John Burroughs bore no part whatsoever. In the published lists of donors not a single dollar appears to his credit. Barring an article, entitled "A Bewildered Phoebe" which appeared in *Bird-Lore*, Vol. III, pp. 85-87, he does not appear to have *given* a single line to bird literature. In short, what he did for the birds was to sell at a goodly price the things he had to say about them. In eighty-eight numbers of the *Auk*, covering twenty-two years, his name was mentioned in three places. It is believed that there was a fourth mention, but at the time of this writing that one can not be found.

Most truthfully has it been said that his most important contribution to public welfare was in opening the eyes of others to the beauty to be found in nature. With equal truth it might have been added, that the vision of eyes, that remained closed for twenty, thirty, or forty years in spite of the wonders, the interests, and the beauties of nature everywhere about us, can scarcely be worth the printer's ink that served as the carrying medium for their eye-opener.

No one can tell us who were the *original starters* of this movement for which our sympathy has been asked. Very likely they belonged to the class just mentioned. If so, their position is similar to the somewhat analagous though suppositional case of a community that suffered from an inflammation of the eyes until they were unable to see. The malady was one that easily

yielded to treatment, and the best of physicians were within call. But they perversely refused to seek aid until there came along a quack selling eye-salve. In this all of them invested, used it, and soon could see. Their appreciation was such, that totally unmindful of the true benefactors of our race, they began a clamor for the establishment of a national monument for their quack.

*National, via McGregor, Iowa.*

### FIFTEEN ARIZONA VERDINS' NESTS

By FLORENCE MERRIAM BAILEY

THE SMALL gray Verdins (*Auriparus flaviceps*) were more often seen than the large spotted-breasted Cactus Wrens in the mesquite near our winter camp at the foot of the Santa Rita Mountains, perhaps partly because the Wrens were very shy and the Verdins not at all so, for in the territory examined the Verdins' nests were not nearly so abundant as those of the Wrens.\* On the fifty-three acre patch where twenty-seven Cactus Wrens' nests in good repair were listed, only three good Verdins' nests were found. On two sides of the fifty-three acres, however, twelve Verdins' nests were listed within a short distance and a little farther away a number of others were noted in passing.

Local conditions of tree and shrub growth may have been one of the determining factors explaining the presence or absence of the nests. For of the fifteen examined all but one, which was in a catsclaw (the locally favorite site with the Wren), were in zizyphus bushes, and nearly all of these bushes stood under good-sized, more or less isolated mesquite trees. Whether this selection of nesting site was on the protective principle that two thorn trees are better than one, or whether the shading and extra, thorn-supplying mesquite, which seemed to me such a happy addition, was quite irrelevant to the Verdin, an easily accessible long-thorned zizyphus being its only requirement, must remain a matter for speculation. Suffice it to say, the globular nest, while smaller than that of the Cactus Wren, is large enough to be fairly conspicuous, readily discerned by eyes much less keen than those of marauding hawk or owl, and every extra safeguard would seem that much to the good.

In location, the nests examined averaged decidedly lower than those of the Cactus Wrens, varying from 4 feet, 3 inches, to 7 feet above the ground, seven of these being from 4 $\frac{1}{4}$  to 4 $\frac{1}{2}$  feet; one, 4 feet, 8 inches; and two, 5 feet, 3 inches; while only two were 6 feet, and three, 6 feet, 9 inches, to 7 feet; none being over 7 feet. In the case of the Cactus Wrens, 24 out of 64 were between 7 and 9 feet from the ground.

The Verdins nest, while roofed and having a covered entrance like that of the Cactus Wren, is approximately spherical instead of retort shaped, and its entrance is overhanging, slanting down from the side instead of extending up at an angle from the nest chamber. While much shorter than that of the

\*See "Cactus Wrens' Nests in Southern Arizona", *Condor*, XXIV, September, 1922, pp. 163-168.