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Colorado Arbor Day Notes

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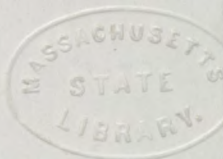
suggestions for
Bird Day

April 20, 1900

Issued by the

Superintendent of Public Instruction

Mrs. Helen L. Grenfell



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MASSACHUSETTS
TO
STATE LIBRARY

To the Educational Workers of Colorado



IN accordance with the law, the 20th day of April will be observed throughout the state as Arbor Day, and it is also earnestly suggested to the educators of the state that the same date be kept as Bird Day. There is the greatest need for protection of the forests, and an almost equal need for the preservation of the bird life of the country. Patriotic regard for our nation, and sympathetic appreciation of nature, alike demand able and systematic teaching of our children upon these subjects. To insure intelligence, care and protection of both birds and trees by our boys and girls, we must implant in their growing minds, knowledge, upon which to base their principles. That the forests collect water, forming great rivers which fertilize the soil, and that the birds destroy millions of injurious insects and insect eggs, are facts which should be made clear. The wanton sacrifice of both these important aids to the life of man, has been largely due to ignorance; and the arrest of such sacrifice can only be secured through enlightenment.

This especial holiday is one whose spirit must be lived up to throughout the year, and its observance not confined to the program of the day, although this should be made as valuable as possible. It should be

prepared for by a continuous and thorough system of instruction in the line of nature study, and will richly repay the teacher for her efforts, for if this special study is a fashion, as some one has said, "God bless a fashion that makes people happy—that makes rough natures gentle, careless people careful, stupid people bright, and, best of all, that leads the soul through nature up to nature's God."

A brief descriptive summary of the principal trees and birds of this state is offered in the hope that it may prove useful as a basis for a full and comprehensive plan, adapted by each teacher to the needs of his own field of work. In the preparation of the following outline the assistance is gratefully acknowledged of the following books: Professor W. W. Cook's "Birds of Colorado," Apgar's "Birds of the United States," the Colorado Department of Public Instruction Arbor Day circular of 1892, "The History and Observance of Arbor Day," by N. H. Eggleston, and "Our Common Birds," by C. L. Hodge, Ph. D.

HELEN L. GRENFELL,
State Superintendent of Public Instruction.

DENVER, COLO.

PROCLAMATION ARBOR DAY



THE establishment by statute of a day devoted to the planting of trees and the adornment of nature crystallized a beautiful and useful custom into law. Its annual approach is always joyfully anticipated and its requirements cheerfully observed. Its practical results are already with us; for our children its benefits are beyond calculation. The citizen who plants the tree and watches its constant growth, must love the land that nourishes it, the country that protects it, and the government that is over all.

In compliance, therefore, with the provisions of the statute, and pursuant to the authority in me vested, I do hereby direct public attention to the act of the General Assembly designating

Friday, the 20th day of April, A. D. 1900

as Arbor Day, and recommend and enjoin the due observance thereof in the planting of forest trees for the benefit and adornment of public and private grounds, places and ways, and in such other efforts and undertakings as shall be in harmony with the general character and purpose of the day.

In witness whereof, I have hereunto set my hand, and caused the Great Seal of the State to be affixed this second day of April, A. D. 1900.



By the Governor:

CHARLES S. THOMAS.

ELMER F. BECKWITH, Secretary of State.



T R E E S

FOR effective and intelligent work in the direction of encouraging tree planting and care of the forests, opportunity must frequently be made to instill in the minds of the pupils the true spirit of love and zeal for the cause. The value of Arbor Day will be slight, if its influence is restricted to a short time in the spring. A thorough explanation from the teacher, and frequent studies of tree and plant life throughout the year are necessary to a proper understanding of the situation, by which alone we can hope to inspire in the children the right sentiment. The subject appeals to us and can be presented from both the practical and the aesthetic sides. The children should learn the facts in regard to the past wholesale destruction of the forests and its disastrous results. One instance will serve as an example of many. In the Sierra Nevadas the largest and finest trees of a certain locality were needed for the use of the miners, and in order to obtain these quickly the entire forest was leveled to the ground. The trees not desired for use were set on fire, and not only themselves, but the soil beneath them, containing the accumulation of rich leaf mould for centuries, were burned, and in the intense heat even the rocks were crumbled. Hitherto, the even flow of water from the slowly melting moun-

tain snows had made fertile the land in the adjacent valleys, but now, when the rains came and the swiftly melting snows of spring, a devastating torrent swept over the farms, covering them with ashes and gravel, and rendering them so unfit for cultivation that the settlers were forced to abandon their homes.

Nature's wonderful solution of the problem of irrigation can not fail to interest all learners. The forests are her great storehouses. Under their beneficent shade, the moisture sinks into the rich, spongy soil, the overflow gradually finding its way to the water-courses, while through underground channels, the accumulated water reappears in springs and lakes for the refreshment of distant meadows and valleys. The trees are the most successful of wind-breaks, and happy is the farmer who has early planted such a "shelter belt" for his orchards and gardens.

The uses of woods in manufactures and arts are too many to be here enumerated, but should be well reviewed in connection with the practical study of the matter.

How much of our enjoyment of nature and our appreciation of its beauty, how much of the universal exhilaration in the abounding life of spring, are due to the trees it would be impossible to estimate. Let us not neglect the cultivation of the aesthetic and moral perceptions of the subject, while impressing the practical. Ruskin speaks of men so practical that they would turn the human race into vegetables, make the earth a stable and its fruit fodder. - "There are vine dressers and husbandmen who love the corn they grind and the grapes they crush better than the gardens of the angels upon the slopes of Eden; hewers of wood and drawers of water who think that the wood they hew and the water they draw

are better than the pine forests that cover the mountains like the shadow of God, and the great rivers that move like His eternity."

A great, refining, ennobling influence is brought into a child's life with an enthusiasm for planting, tending and watching the growth of flowers, vines and trees, and sympathetic inspiration to such work on the teacher's part can hardly fail to communicate this enthusiasm.



TEN THINGS *We May Do* TO HELP PLANT LIFE

First—In transplanting a tree, first prepare the ground where it is to have its new home, by digging a hole sufficiently large to receive all the roots of the tree, with space enough beyond to allow their unimpeded growth for some time, carefully reducing the earth to such fine condition that it can be brought into close contact with the smallest roots. Then take the tree from the ground carefully, so as to preserve all the thread-like roots, and replace them as soon as possible in the prepared soil. Many trees live but a short time on account of having their roots twisted or hacked off, and then having hard, lumpy earth thrown hastily around them.

Second—Refrain from hitching horses to trees, swinging on branches of young trees and cutting their bark. In taking bark from mountain trees, always leave one portion intact for the circulation of the sap, instead of cutting the piece of bark all around the trees.

Third—Pluck flowers carefully, so that the roots are not harmed. It has been noted that in some places in Colorado, our beautiful columbine has vanished because tourists have pulled up so many plants by the roots.

Fourth—Furnish support to young and struggling trees, and to the vines whose tendrils seek something on which to climb. A simple cage built around the tree often saves its life by protecting it against animals and passers-by, heavy winds, etc., and a few strings and tacks will aid our climbing vines to cover walls and fences with beauty.

Fifth—In gathering flowers, exercise care to take such as are matured, without taking buds.

Sixth—Remove a weed here and there, as we see in passing, that it may not hinder the growth of more useful or beautiful plants.

Seventh—Collect and burn the dry and undesirable weeds from our vacant lots and roadsides. If we would all do our duty by such places as are nearest ourselves, a pest like the Russian thistle could not gain such headway as it has in the state.

Eighth—Observe and minister to the different needs of the different species of plants around us. Too much water kills evergreens, cacti, and other natives of dry soil, while too little is fatal to violets, pansies, cottonwood trees, and other moisture-loving varieties.

Ninth—Refrain from trampling on young and tender grass.

Tenth—Use our influence toward beautifying school grounds with trees, shrubs and grass.

COLORADO TREES

CONIFERS

I. Pine Family

Yellow or Bull Pine covers more ground than any other pine in America, growing from Mexico to Canada, from plains to the Pacific, 100 to 300 feet tall, heavy wood, good windbreak. Altitude of growth, 6,000 to 7,000 feet.

Western White Pine is 50 to 75 feet high, has handsome, dark, compact foliage and soft wood, much used in furniture. Altitude, 6,000 to 9,000 feet.

Black, or Lodge Pole or Tamarack Pine is 40 to 50 feet high, has straight trunk, with smooth bark, wood coarse and tough, not used for boards—used by Indians for lodge-pole. Altitude, 8,000 to 10,000 feet.

Fox-Tail or Hickory Pine is seldom over 40 feet high, has thick trunk, reddish-gray bark, tough, hard wood and tufted foliage, giving name of Fox-tail. Form varies from pyramidal in sheltered spots, to a straggling bush. Altitude, timber line (11,000 feet).

Pinon or Nut Pine is a round-topped tree, 20 or 30 feet high, branches from base, has resinous wood, best for fire wood, hence such quantities are used for making charcoal as threaten extermination of the tree. Seeds are pinon nuts. Grows in valleys and foot-hills.

II. Spruce Family

Red or *Douglas Spruce* or *Mountain Hemlock* may be 300 feet high, has reddish-yellow wood, heavy and strong, used for railroad timber. Grows in foothills.

White or *Englemann's Spruce* is 100 feet high on lower mountains, and diminishes gradually until at timber line it becomes a creeping shrub. Has light green, to steely foliage, strong wood, good for timber.

Colorado or *Blue Spruce* is found only in Colorado, and under the best circumstances grows to a height of 100 feet. Has a beautiful bluish lustre. Has been selected as the state tree. Altitude of growth, 6,000 to 9,000 feet.

III. Fir Family

White Fir is the most widely distributed of North American firs; 100 to 150 feet high. Has long leaves, curved upward and inward, of light green color, giving it a magnificent silvery appearance in the sunlight. Altitude, 6,000 to 7,000 feet.

Balsam Fir is 100 feet high, rather uncommon, of no value for timber, but its spicy, fragrant leaves are much sought for pillows. Grows on slopes and in canons, near timber line.

IV. Cedar Family

Red Cedar is the only tree that has traveled here from the East, growing everywhere on this continent. Grows 100 feet high in bottom lands, small and low on hills. Has light, soft wood, which lasts long in contact with soil, so is principally used for fence posts and railroad ties.

White Cedar or *Rocky Mountain Juniper* is about 30 feet high, a scraggy, stunted tree. Grows on low, dry hills of Colorado, chiefly in company with nut pine. Has wood similar to that of red cedar.

DECIDUOUS TREES

Aspen Tree—called Quaking Asp, because its small, round leaves on long stems constantly shake—is the only deciduous tree in the mountains of Colorado. Of little value for timber or for ornament, but very useful in preparing the ground for more valuable trees, as it springs up after a forest fire, and later gives place to others.

Cottonwood is the best known tree of the West, and the great shade tree of the semi-arid regions. Grows along water courses on the plains, and so rapidly that it was extensively planted with new settlements.

Box Elder, or *Ash-Leaf Maple*, is a small, handsome tree, of graceful, rounded masses of soft foliage; a rapid grower; much used for decorating lawns. Grows along streams on the plains.

Willow grows along streams, has slender, pliant branches; usually grows as a bush, but under favorable circumstances becomes a large tree.

Poplar grows in some varieties in Colorado. Has soft wood, capable of many uses.



THE spirit of Arbor Day is benevolent. Its aim is the public good in some form, and it has a wide outlook. There is nothing narrow or selfish about it. If it plants trees, it is not for the benefit of any individual alone, but for all who may see them and have the benefit of them, whether soon, or centuries hence. It plants for those who are to come, as well as for those now living.

—N. H. EGGLESTON.

❧ ❧ B I R D S ❧ ❧



NO less important than intelligence regarding trees is intelligence regarding birds, and a systematic course of instruction throughout the school year is indispensable with both subjects. The interest now awakened all over the country in the preservation of our native birds is most encouraging. The many philanthropic plans for the increase and protection of bird life are sure to bring speedy results, if, as we are told, it is true that "A pair of living bird's eggs, with proper care by the children of the country, could produce in ten years a pair of birds for every child in the land."

To stop the ravages made upon bird life by the demands of millinery, the passion for collecting, and the love of hunting, competent instruction in our schools will avail far more than occasional newspaper tirades. Teach the children the reasons for cherishing this precious life, and methods of doing so, and there will be less need of preaching against human destructiveness. We learn that the common birds of our country have been produced by nature through a long course of geological epochs and adapted to the conditions of the continent so wonderfully, that man

made an almost irreparable mistake in arbitrarily introducing the English sparrow into this "vast living harmony."

In the problems that confront the birds in their struggle for existence, that of food supply is the greatest. This is the chief cause of their migration to the tropics in winter. Students of ornithology have prepared charts indicating the foods of the various birds, and all bird lovers can materially assist the little creatures by supplying a part of their food in times of scarcity. Another great problem is that of meeting the natural enemies of the birds. Numbers of birds can be saved yearly from perishing in cold storms, by furnishing sheltered nooks and boxes about the houses, barns and trees for their use. During the nesting season, children can do much by watchfulness to prevent the capture of the young birds by cats.

The collecting of bird skins, eggs and nests can best be discouraged by impressing the value of the living birds and turning interest upon cultivating their acquaintance. Wordsworth said, "Natural history is taught in infant schools by pictures stuck up against walls, and such like mummary. A moment's notice of redbreasts pecking at a winter's hearth is worth it all," but Wordsworth did not know the fine reproductions given by our modern pictures, which are decidedly preferable to the use of dead stuffed specimens of that one of all God's creatures whose greatest charm is its bright intensity of life. A child will not learn to value and love birds by becoming acquainted with these stiff caricatures. One of the most painstaking and experienced students of our American birds, Professor Hodge, of Clark University, says: "Bird collecting and skinning and stuffing

is at best but sad drudgery, and I speak from dreary, though in many respects, successful experience. I hope almost enough of it has been done to last the country for the next thousand years, and what remains should be done by experts, and the results should be preserved in moth-proof tin boxes in museums and not on exhibition; for scientific reference and not for show. Bird study afield or through an opera glass is at best for the few who have money and leisure. Like the flowers of our homes, the kind of bird study which aims to attract birds about our homes should become part of our ordinary home life, an equal delight to parents and children, rich and poor, busy and idle, alike. * * * A board by the window for crumbs and all sorts of bird foods appropriate to the seasons should become as much a household institution as the window garden inside, and promises to be a source of even more interest and pleasure. * * * Water may be supplied by placing a shallow dish, always kept fresh and clean, on a short post under a tree, merely high enough up to be out of reach of cats. The water should not be more than two inches deep. Few people who have not tried it can have any idea of the satisfaction there is in seeing the thirsty birds come down to bathe and drink. Nothing adds more to the comfort of birds in hot weather."

The numerous influences for destruction to the birds have decreased their numbers at an alarming rate in recent years, and no more worthy aim for the work of nature study in our schools could be proposed than that of changing this decrease to increase in the bird population. In order to be intelligent directors of the children, teachers should study this line of work, and give systematic lessons leading to a

genuine understanding of the need and sincere interest in its fulfillment.

Among the many interesting and instructive books upon birds which will be enjoyed by teachers and their pupils, the following may be mentioned:

Our Bird Allies—Theodore Wood.

Bird Ways—Olive Thorne Miller.

Bird World—Grier & Co.

Birds and All Nature.

Birds in Village and Field—Florence Mirriam.

Home Studies in Nature—Mrs. Treat.

Birds, Bees and Other Studies—John Burroughs.

Bird Life—Chapman.

The Birds About Us—C. C. Abbott.

Bird-Land Echoes—C. C. Abbott.



TEN THINGS *We May Do* TO HELP BIRD LIFE

First—Set out about our homes and school grounds trees, shrubs and other plants most valuable to attract birds and furnish them food from their fruits, berries or seeds.

Second—Scatter crumbs and grains where the birds can get them.

Third—Place shallow dishes of water at convenient heights for the birds to drink and bathe.

Fourth—Place nesting material in their way at the time of nest building.

Fifth—Where cats are kept, train them to keep away from the nesting regions.

Sixth—Watch for opportunities to help and protect the fledgelings until able to fly. Thousands of young birds every year leave their nests a day or two before their wings are quite strong and fall an easy prey to cats or other enemies. We can place them in a cage near the nest, and often the old birds will continue to feed them. If not, they should be fed and watered regularly about every hour during daylight until they become able to help themselves. Caged birds should be liberated as soon as it is evident that they can not be made happy and contented in captivity.

Seventh—Provide bird houses and sheltered nooks for the nests. Dr. Hodge says the proper size for a bird house is six inches square floor space and eight inches high. A single opening near the top should be made two inches in diameter for most birds, although for wrens, chickadees and the smaller birds, one inch is sufficient and will serve to keep out the English sparrow. Houses may be made with several compartments of these proportions.

Eighth—Arrange safe places of shelter about our houses and barns, in order to save as many birds as possible during the storms.

Ninth—Refuse to wear birds and the plumage that is obtained by slaughter. If you must wear feathers, remember that made wings, quills and ostrich plumes cost no bird its life. The wings are made from the feathers of fowls used for food.

Tenth—If you have a bird to tame, place it in a clean cage, supply it with water and food for the first day, being careful not to frighten it. By the morning of the second day, when all the food in the cage has been eaten or removed, offer it suitable food on the end of a slender wand, perhaps several feet long at first, and gently approach until the morsel is in reach of his bill. If he takes it, try another, moving up a little closer. If not, let his appetite sharpen a little, or get a longer stick. By this method and a little patience any young bird can, in three days, be tamed to take things from your hand.

COLORADO BIRDS

WATER BIRDS

Duck Family is the largest family of swimming birds, numbering over 150 species. These birds are web-footed, and belong to the great order of tooth-billed swimmers. They are furnished with ridges or teeth, along the edges of the bill, which serve as strainers for removing the mud, sand, etc., from the food. Twenty-five varieties are found in Colorado, among which are Canvas-back, Redhead, Wood Duck, several Teals, Ring-necked, Old Squaw, Harlequin Duck and Ruddy Duck.

Swan Family, the largest birds of the tooth-billed swimmers, are the smallest group, numbering about ten species. They are very long-necked, white, with a strip of bare skin from eye to bill; graceful in swimming, but awkward on land on account of the position of their legs, far back along the body. In feeding they do not dive, but tip up the body, or simply thrust the head and neck under water. Their food is in part vegetable, but they eat snails, also. Swans are rare in Colorado, but two varieties, Trumpeter Swan and Whistling Swan, are found here in migration.

The Geese form a group intermediate between the swans and the ducks. They are large, long-necked, long-legged birds, with the space in front of

the eye feathered. They spend less time in the water than ducks, and being longer legged, are better walkers. Their food is almost entirely vegetable. Hissing, when interfered with, is a trait common to geese and swans. About half a dozen varieties are found in Colorado, the most common being the Canada Goose. Others are Greater Snow Goose, Lesser Snow Goose, American White-fronted Goose.

Gull Family are hoarse-voiced, large, long-winged, sea and shore birds, usually with square tails. They are good swimmers. They procure their food by gathering it from the surface of the water with their strongly-hooked bills, and their diet is varied,—mammals, birds, eggs and fish. Their nests are almost always on the ground. Strange as it seems, at this distance from the ocean, gulls are found about our lakes. The following varieties have been seen here: Western Gull, American Herring Gull, California Gull, Ring-billed Gull, Laughing Gull, Franklin's Gull, Bonaparte's Gull, Sabine's Gull.

Terns belong to the same order as gulls, but are smaller and have forked tails, while those of gulls are square; also hold their heads pointing downward in flight, while gulls hold theirs in line with the body. The Arctic Tern, Black Tern and Forster's Tern have been observed in Colorado.

LAND BIRDS

The grouse, partridges, etc., belong to a large family of game birds. They live almost entirely on the ground, and have mainly brown and gray colors. They have the habit of hiding rather than flying to

escape the gunners. Their flight is rapid, accompanied by a whirring noise caused by the beating of their small concave wings. Like hens, they scratch the ground to obtain their food, which consists of worms, insects, seeds, etc. Are generally large birds with short bills, heavy bodies, short, more or less feathered legs, and rather long tails.

The Dusky Grouse is a Rocky Mountain variety, which nests as high as timber line.

White-Tailed Ptarmigan or *Mountain Quail* nest entirely above timber line, are white in winter, darker in spring, and close in color to the moss and rocks in summer.

Sage Grouse is an inhabitant of sage brush plains; nests on plains and as high as 8,000 feet altitude.

The Falcon Family, including hawks, eagles, vultures, etc., is the largest family of birds of prey. Hawks are medium or small in size, with short, stout bills, long, nearly square tails, and long, bare legs. Have wonderful powers of flight. Several varieties occur in Colorado.

Eagles are large, with heavy bodies and mainly toothless bills. They are inferior in power of flight, and usually capture their prey by stealth rather than by open fight. The Golden Eagle is a blackish-brown bird, with almost golden back head and back neck. It is more common in the mountains of Colorado than anywhere else in the United States.

The Bald Eagle is very large, dark colored, with white head, neck and tail. It is the variety which has the honor of being our national bird, and is fairly common in Colorado.

The Owl Family also belongs to the birds of prey. The owls differ from all other birds, in having the face so broadened that both eyes look forward instead of sidewise, and the eyes are so surrounded by radiating feathers as to make them seem larger. The Short-Eared Owl, Long-Eared Owl, Barn Owl, Screech Owl, Horned Owl, Snowy Owl and Burrowing Owl are some of the varieties found in Colorado.

The Crow Family, including Jays and Magpies, is represented by numerous specimens in Colorado. They are heavy-billed, peculiarly intelligent birds, with the nostrils generally well covered with bristly feathers. The Jays are large, brightly colored, saucy, noisy birds. The Long-crested Jay and the Rocky Mountain Jay, which latter is well known to miners and campers for its thieving propensities, are the most common in our mountains. The Magpie, also a very cunning bird, is found here.

The Oriole Family is represented in Colorado chiefly by the Red-Winged Blackbird, principally on the plains and about cornfields, the Yellow-Headed Blackbird of the foot-hills, the Western Meadowlark, found on the plains and in the foot-hills, and whose beautiful song is the welcome harbinger of spring, and the Bobolink, which is found here but rarely.

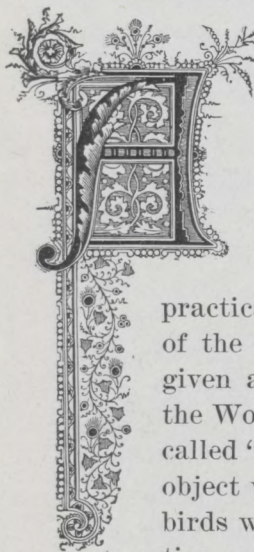
The Sparrow Family is the largest of bird families, numbering 550 species, and found everywhere (except in Australia) at all seasons of the year. They have short, conical bills, with the corners of the mouth bent downward. Those usually called Sparrows have plain colors arranged in more or less streaky manner. The Grosbeaks number about a dozen species, are larger, with heavy, stout bills, and

are bright colored with bright markings of red or yellow. The Finches are very much like the Sparrows. Nearly all the family are seed-eaters (our cage Canary is a member), and for this reason are not so migratory as the insect-eaters, the migration of birds being due more to lack of food than inability to stand cold. No less than fifty varieties of this large family are found in Colorado.

The Swallow Family comprises eighty species of long-winged, small birds. They spend most of the time in the air in pursuit of insects, and on account of their weak, small feet, perch on slender twigs and on telegraph wires. They are usually black and white. Six varieties occur in Colorado, the most common being the Barn Swallow, which nests in barns, using mud and grass for building.

The Thrush Family is a large one, containing 300 species. They are noted for their song, plain colors and usually spotted breasts. The tail is nearly square-tipped, of wide, soft feathers. They are woodland birds, of migratory habits. The varieties in Colorado are chiefly the Hermit Thrushes, the Willow Thrush, the American Robin and the Bluebird.

BIRD CLUB SUGGESTIONS



MOVEMENT started in Worcester, Mass., in April, 1899, aroused so much enthusiasm among children and their parents, and proved so successful for the first year, that it is hoped the plan may be adapted to practical use in the Colorado schools. A copy of the constitution of the Worcester club is given at the close of these suggestions. In the Worcester schools these organizations are called "Ten to One Clubs," indicating that the object was to have ten of our valuable native birds where we have but one now. No objection would be made to either the adoption of this name, or some other appropriate one—the Bird Lovers' club, the Young Audubon club, are suggested—to be organized in every school in the state. It should be clearly understood that the object of the club is to use every means possible to increase the number of our native wild birds by providing them, when necessary, with food, water and shelter, by treating them with uniform kindness, and especially by protecting in every way their nests, eggs and young. A most wholesome channel would be opened to the natural activities of the children, and the cru-

elty sometimes practiced by the young in ignorant thoughtlessness, be greatly lessened.

The plan and object of such work should be thoroughly explained to the children and their sympathies won, and then the club should be placed in their hands. They should hold regular meetings for making individual reports of what has been accomplished, exchanging experiences and helping one another from what has been learned. A central club might be arranged in each county—under the guidance of the county superintendent—which should receive and keep reports from all the other clubs in the county, and report to the State Superintendent's office from time to time, which office would then have material to issue a yearly report for the encouragement of the youthful workers.

It is sincerely believed that such a movement is greatly needed in our state, and that a little concerted effort on the part of the teachers would start in motion an idea whose growth would bring about great practical advantages to our state, as well as exercising a most broadening and ennobling influence upon the hearts and minds of our boys and girls. The study of birds is now engaging the minds of some of the greatest scholars of America, and richly repays even the most humble student.

Constitution Ten to One Clubs

Motto: Pro Avibus et Patria

ARTICLE I.

Name and Purpose.

Section 1. This organization shall be known as the Ten to One club, ——— school, grade —. The object of the club shall be to use every means possible to increase the number of our native wild birds by providing them, when necessary, with food, water, shelter and nesting places, by treating them with uniform kindness, and especially by protecting in every way possible their nests, eggs and young.

ARTICLE II.

Membership.

Section 1. Any pupil of the ——— school may become a member by signing the constitution and working for the objects of the club.

ARTICLE III.

Officers.

Section 1. The officers of the club shall be a president, eight vice-presidents, a secretary and four assistant secretaries, and a committee of five on charts and statistics.

Duties of Officers.

Sec. 2. The duties of the president and secretary shall be those usually attaching to such offices.

Sec. 3. Vice-presidents and assistant secretaries shall perform the duties of their respective chiefs during their absence, or when the club meets in sections.

Sec. 4. The committee on charts and statistics shall make a map of a certain district, to be determined by the club, and keep a record of the number of birds' nests reported and the history of each nest, and shall make a report on said map and record at the last meeting of the club in June and November of each year, and at any other time that the club may direct.

ARTICLE IV.

Meetings.

Section 1. The regular meetings of the club shall be held on ———— afternoon of each week at ——— o'clock during the school year.

Sec. 2. Special meetings may be held at any time at the call of the president and secretary, with approval of the principal and all the teachers, during the school year, and if held in the school building.

Sec. 3. Ten members shall constitute a quorum.

ARTICLE V.

Amendments.

Section 1. This constitution may be amended by a majority vote of those present at any regular meeting, provided that notice of proposed amendment be given at a previous regular meeting.

By-Laws Ten to One Clubs

Order of Business.

1. Minutes of previous meeting.
2. Reports of committee on charts and statistics (if called for).
3. Reports of special committees.
4. Reports of birds' nests newly discovered.
5. Records of nests previously discovered.
6. Suggestions by members as to ways and means for protecting birds' nests and young.
7. Miscellaneous business.





LET but a bird—that being so free and uncontrolled, which with one stroke of the wing puts space between you and himself—let him but be willing to draw near and conclude a friendship with you, and lo, how your heart is moved! No one can be insensible to the claim which confidence imposes; it is, so to speak, a freeman's right. The stork of the north builds its nest on your roof and everybody envies you and seeks the same favor in the coming spring. The swallow of the south makes our open house her own, and joy enters with her; her presence is a promise of happiness.

—MME. MICHELET.

PRESS OF
THE SMITH-BROOKS PRINTING CO.
DENVER, COLO.

