Clever Birds Fool Enemies

Tricks of Self Preservation Are Common Among Feathered Folk and Beasts

A little gray bird dropped at the feet of the men who were resting in the woods. Apparently it was ill, with both wings injured. With an exclamation of pity one of the men reached to pick it up, but the bird escaped, only to drop a few feet away. Again the man reached out to help it, and again the wily bird, a hedge-sparrow, escaped. The mystifying performance continued until, suddenly, we are told by Friedrich von Lucanus, writing on "Animal Actors" in "Deutsche Allgemeine Zeitung" (Berlin), the bird shot up into the air and flew away without any sign of being hurt. The clever hedge-sparrow, Herr Lucanus explains, had built its nest in a near-by tree, where it was bringing up its young, and as the humans unwittingly came close to it the mother bird performed its little comedy to lead them away. When it succeeded it dropped its masquerade and flew away. But the hedge-sparrow is not the only creature who acts this way when it believes its young are in danger, we learn, reading on:

Other birds have similar tricks which they use for self-preservation. The bittern, when endangered, stretches its neck, head and body into a straight line, so that it looks like a twig or reed and thus escapes the attention of the attacker. The bark-colored goatsucker, fabled to suck animal milk because it loiters near cattle in order to catch insects, does not rest on twigs like ordinary birds, crosswise, but lengthwise. In this manner it appears to be part of the branch and thus escapes particular notice.

When in danger the hoopoe throws itself flat upon the ground, spreading out its tail and wings, both banded with black and white. It then has the appearance of some colored bit of cloth rather than a living bird. The stone owl, or sawwhet, when frightened, incessantly moves its head up and down. Living in holes of trees, as it does, a robber at night is frightened to see two flaming balls of fire, the eyes of the owl, bob up and down, and is frightened away. Birds of the woodpecker family act quite like the hoopoe. They not only throw themselves flat on the ground but move their long necks in snake-like rhythm. By doing this the bird actually resembles a snake and so deceives its pursuer.

Among the amphibia and crawling animals, we also find clever actors. In the tropics there are frogs capable of distending their stomachs into great balls, which frightens frog-eating animals away. Like this particular species of frog, there is a fish known as the swellfish, or common puffer, which lives near the coast or in rivers of warm zones. In case of danger, puffers blow themselves into enormous balls, rise to the surface and float on their backs. An enemy may snap in vain at the prey. The sea-urchin possesses similar propensities, but it is particularly guarded by being covered with spines or quills. Like the porcupine, the sea-urchin can entirely surround and protect itself by means of the erect quills.

Many animals are especially equipped in order to protect themselves. In Australia, the wonderland of animals, where egg-laying mammals are still to be found, there is a lizard called the collar lizard It has a broad collar made of skin which is brightly colored in a mosaic pattern of orange, red, blue, and brown. When at rest, the collar is close to the body, but in time of danger, the lizard rears up its collar like an umbrella, at the same time standing on its hind legs. This presents a fearsome sight to its opponent, which usually runs away. Employing the same tricks as this type of lizard is a bird whose habitat is South America, the so-called fan parrot. At the back of its head it has a fan-shaped arrangement made of long, red feathers tipped with opal blue. When it is excited or angry, these feathers stand up straight, giving the bird a frightful appearance.

The orange-speckled toad also makes use of its color for protective purposes, we learn as we read on:

In time of danger it bends its neck and head backwards, at the same time crossing its front feet on its back. By doing this, the bright expanse of orange color, as well as the color of its feet, is exposed to view. The sudden change from a drab brown to this bright hue completely disguises the animal.

Equally interesting is the ink or cuttlefish. When pursued it ejects an inky fluid, brownish black in color, which completely surrounds the fish like a fog and hides it from sight. The secretion of the cuttlefish plays an important role in painting, making the pigment known as sepia. The name cuttle-fish is poorly chosen, for this unusual animal is not a fish at all. It belongs to the mollusk family. It has a depressed sac-like body, an enormous head, and eigh to ten sucker-bearing arms. The arms are used for walking and in seizing prey. There is another species of cuttle-fish which lives in the ocean. In the dark waters the dark brown secretion would lose its significance. There, the fish are equipped with a "lighting" organ which serves for purposes of recognition as well as communication. In this case, the protective apparatus is adjusted to the environment Instead of the dark inky fluid it ejects a greenish, phosphorescent liquid which spreads out into little bubbles. The opponent follows these light bubbles thinking that here, as in the case of other deep-sea fish, they emanate from the animal itself. In the meantime, the cuttlefish has withdrawn to safety.

The star actors in the animal world are insects. Many of them, particularly certain bugs, have the habit of dropping from leaves and trees in moments of danger. Landing on the ground, they remain absolutely motionless. Falling into the grass, or among dead leaves, they are practically safe. In Africa there is a pecular grasshopper known as the "devil's flower." It is really a wolf in sheep's clothing. This green insect has two long feelers which expand at the end like petals and are colored lavender and white. With its feelers extended, it patiently sits on plants and leaves, waiting for flies and butterflies. Alas for the poor insect that expects to sip nectar from this flower, for it is immediately caught up and devoured. Another insect of a similar type is found in the region of the Orange River. It has white wings edged with pink, giving it very much the appearance of a morning-glory. Waiting for its prey, with wings extended, it gently rocks its body to and fro whenever an insect approaches, exactly like a flower fanned in the wind.

Without a doubt all of these actions are purely instinctive. This can best be proven by examples of animals deprived of their parents at a very early age, and reared in perfect isolation. They will, nevertheless, demonstrate all of the instinctive actions which they need for their own benefit. I reared a young tree hawk, which I had acquired when it was but a few days old. It is a known fact that the hawk always strikes its prey while in flight. My bird acted exactly the same way without the least bit of instruction. The hawk had only been fed bits of meat out of my hand. When first let loose, it struck down a goldhammer which had escaped from its cage. Seeing the bird in flight immediately set the instinct of the hawk into play. The typical manner of securing its food was born in the bird, and it needed no example to teach it to act accordingly. I could give similar examples of other birds. Even the technique of nest-building is instinctive.

Private Flying

New York.—Development of private flying clubs in the United States on a scale similar to those in England is recommended by the National Aeronautic Association following a year's investigation of progress in aviation in this country.

Detailed plans for the formation of such organizations are set forth in the current issue of the Aeronautic Review in an article by Edward P. Warner, secretary of the National Aeronautic Association Committee and formerly Assistant Secretary of the Navy in charge of aeronautics.

Persons who desire to fly may, under the club method, become part owners of an airplane for a fraction of the sum required to own one outright. The association's committee recommends that charter members of a chapter provide the cost of equipment, plus 25 per cent. reserve and $200 for general operating expense. In addition, dues for flying members would be $15 and for non-flying members $25, these fees to include membership in the association.

A charge of $10 an hour should be made for the use of the club's airplanes by flying members on local flights—and a double charge for cross-country flights, to cover additional hazards, the committee says. This charge would cover the cost of gas and oil, hangar accommodations, mechanical service, engine overhauls and minor repairs, depreciation reserve—to allow for purchase of new airplanes after 1,500 hours of flying—and a small amount for miscellaneous expenses.

The Daniel Guggenheim Fund for the Promotion of Aeronautics recently contributed $12,000 to promote the project. Harry F. Guggenheim, president of the fund, in a letter to Senator Hiram Bingham, president of the association, transmitting the gift, declared that he believed "the greatest single work that the National Aeronautic Association can accomplish will be the furtherance of this movement."

"Private club flying, which has made such great strides in England," he continued, "has been practically neglected in this country, although unquestionably the United States offers a greater opportunity for its development than any other country."

Developing Rust Resistant Wheats

The stem rust of wheat is responsible for enormous losses to farmers in the Prairie Provinces of Canada every year. A sum of no less than $200,000,000 was estimated as the loss suffered through this cause in one of the worst years. This state of affairs is leading the plant breeder to endeavour to develop resistant varieties that possess the merits of the best wheats grown. The Department of Agriculture, through the Botanical and Cereal Divisions, has for years been working on this problem and is following a well-defined line of work which is being carried on at the Rust Research Laboratory in the West and at the Central Farm at Ottawa.

In our education we are still experimenting with useless fads.—Professor E. K. Rand.

Joining Hands With the Soviet

FORD TO HELP DEVELOP RUSSIAN INDUSTRY

V. I. Meshlauk of Soviet Supreme Council, Henry Ford and S. G. Bron, Russian trader, after signing of contract whereby Ford will help establish huge motor car factory in Soviet Russia.

Summer Tea Rooms

Many a woman with a talent for catering and fondness for country life is making a success of conducting an informal tea room. This line of work is especially well adapted to women whose summer months bring more of leisure than of income. In this class are teachers, students and various clerical workers connected with schools and colleges who are comparatively free during th warm weather months. Other women, who lear a more or less shut-in life during the winter have found such a summer enterprise pleasurable as well as profitable. These rural restaurants spring up usually along the popular motor highways, and, having once chosen an advantageous location, the proprietors have only to store their belongings at the end of the season and await the arrival of another summer, when they can resume business at the same stand. For this reason the selection of a desirable location is of the utmost importance as having once established such an enterprise successfully, a change is often detrimental. Tourists soon get the place at certain turn in the road and place ata certain turn in the road and will go miles rather than experiment with a new one. Not to find their anticipated rural restaurant is a distinct disappointment, so a good and continued location is valuable business asset.

DIVISION OF LABOR

A woman who is an authority on the subject always advises dividing such an enterprise between two, one woman undertaking the role of hostess and cashier, at the same time keepink a watchfull eye on the service and aspect of the room; the other taking charge of the "back of the house," as it is prifessionally called This includes the buying of supplies, the direction of the kitchen and the supervision of all orders as they are taken to the dining room. In a small establishment it is quite possible to hire help only for general cleaning and rough work, the two women arriving at a proper division of the labor.

Some of the most successful of special cakes, pies and homemade candies on the village housewives, who often excell in a type of cooking that it is impossible to get from an ordinary domestic worker. The maker of prize doughnuts and lemon meringue pies may be glad to supply these items to the newly opened restaurant and the excellence of a few such specialties often spreads quickly and brings welcome business from tourists and summer visitors. An arrangement of this kind reduces kitchen work, and, at least in the beginning, is often well worth while. From a money-making point of view, it is more advantageous to concentrate on quickly made beverages, sandwiches and salads than to spend portion to the expense and labor, which are items that could be arranged for on a comission basis with some expert village housewife, to mutual advantage.

In looking for a suitable location all sorts of possibilities must be followed up carefully. For instance a detached village schoolhouse has in one case been used for this purpose. Pine tops put over desks serve as extains the daily menu and slates are write their orders. The woodshed has a small gas equipment and answers as a kitchenette. An abandoned carriage house or barn may have wonderful possibilities or one room and a piazza of the village community house, or lodge, may be found for rent.

SUMMER QUARTERS

A mothr and daughter worked out an excellent arrangement by renting farmhouse on a popular motor highway. The owners moved into summer quarters on the second floor, retaining only the kitchen downstairs. The summer tenants, prying but one rental for combined living and busi- own breakfasts and suppers over the small gas equipment in the pantry where the light refreshments they served in their informal restaurant were prepared. The main meal of the day they took with the farmer's family. The question of service and supplies was reduced to the minimum. The charming little room and adjoining piazza was open only for business from 1 to 8 p. m. Supplies included plenty of salad material, fresh eggs, cold chicken, cold boiled potatoes ready for reheating, smoked beef, sardines and other dishes suited to quick preparation and easy serving.

FOOD WHICH CAN BE KEPT

A quaint establishment on the Mane coast followed a similar plan of afternoon serving, the hours being from 4 to 7 p. m. It is the objective point of walking and motoring parties and is also convenient to a trolley line. An awning-covered platform increases the space available for serving and a specific combination of food is offered at a fixed price. This includes a choice of hot or cold beverages, assorted cakes and one or two kinds of ice cream, either with or without the addition of sauce,. This arrangement gives sufficient variety and all the food may be kept over for a day without injury, in any case of slack business because of bad weather. Young girls from the village act as waitresses and are paid only for the actual hours they are needed.

Motorists and other tourists— both men and women—are so appreciative of a well-equipped dressing-room that this important feature should not be overlooked. There should always be available plenty of small, fresh towels, good toilet soap, a generous-sized mirror and hand-glass, clothes-brush and other of the usual toilet articles. There is often an opportunity for the sale of packets of hairpins, hair-nets, pins, inexpensive handkerchiefs, and other small personal belongings which the tourist may be glad to replenish. These details please customers and also bring in extra revenue.

My Garden Battle-Ground

The little ruby-throated hummingbird is my favorite fighter among all the birds. He fights because he loves to fight. He is a good sport to the finish. He will tackle anything from a wasp to a crow, and mercy upon any individual who dares investigate his nest while he is around!

A flaming patch of red and yellow columbine in my garden is a favorite humming-bird haunt each summer. Usually there is one pair which takes, or attempts to take, sole possession. While the columbine is a flower, there is scarcely a time during the daylight hours when our little ruby-throat or his gray throated mate is not hovering on guard. A dead rose branch in the center of the bed is the main lookout. right, the sentinel hums over to a little peach-tree at the side. If we come from the left, he dashes off to the lilac at the other end. Not a trespasser misses his sharp eyes.

Time and again during the day, I hear a volley of fiery, sputtering twitters in the direction of the garden. Some alien summer has dared appear. There is a clash of wings and beaks. Each little bundle of nerves dashes savagely at the other. Zip! Zip! They soar higher and higher, parrying and scarcely follow them, until they finally fade out of sight. Then in a twinkling they are back again. Usually my self-appointed guardian of the columbine, because of the priority of the position, is victor.

A bumble bee irritates him exceedingly. He will dash at one with a fury which would surely send the needle-pointed bill through the intruder if the latter's smaller size did not aid him in slipping provokingly to one side. Sometimes Mr. Bee does some sparring of his own and then a jolly little battle takes place. Ruby-throat sometimes succeeds in driving off his own kind, but he can rarely oust a bumblebee opponent.

Brilliant little duelists though they are, the ruby-throats are the victims of many a strange and untimely death. I have known of one dashing its life out against a mirror or a window-pane, probably in a fit of anger at the opposing reflection. Last year, I heard of a California lady who saw a big bass leay up from a pool and swollow a humming-bird skimming close to the water. My brave little warrior, too, came to a tragic end.

It was late Augist. The ruby-throats had long since transferred their attentions to the delphinium, the petunias, the salvia, and other favorites. One morning, stooping over the gladiolus bed, I found my tiny friend hanging strangled to death in the sharp cleft between two sheathing, sharp-edged gladiolus leaves. Whether he had dropped to low while snatching insects from the blossoms, or whether he had fallen from some fiery battle above, I don't know. I lifted the brilliantly burnished little body and buried it gently there in the midst of the garden, the scene of many a valiant encounter.

Premier Ferguson of Ontario christening the "Imperoyal", a Gypsy Moth plane presented to the Aviation League of Canada by Imperial Oil Limited, at the opening of the Hamilton Airport recently. The plane is being used by Major Gen. J. H. MacBrien, C.B., C.M.S., D.S.O., in his travels about the country in the interests of aviation.

Wim, Wigor, Witality

"To Billy and Helen and Dorothy M.,
Two Jameses and "Cuddles,"
And the rest of my pals who make
Pies in puddles."

A countryman once had a son who was not taller than his father's thumb, and year after year grew no bigger. A giant took the little lad home and gave him such wonderful food that he grew big and strong after the manner of the giants.—Grimm's Fairy Tales.

No one wants to see the little-two-year-old suddenly turn into a giant, but from two to six years is the time when he must learn to like the foods that will make him healthy and make him grow normally.

Some Ways of Helping Him

1. **Regularity.**—Definite hours for meals should be followed consistently. Disorders of digestion commenced now may lead to poor digestion in later years.

Regular time for bowel movements should be part of the daily schedule.

2. **Good Eating Habits.**—Children should be encouraged to eat slowly and masticate well, but not to play at meals. Learning to eat everything put before them without a comment or question is a valuable and useful habit for good manners in later life as well as for good health. Water should be taken regularly between meals.

3. **Carefully Balanced Menus.**—In teaching children to like wholesome food, it is necessary:

(a) To avoid monotony. This does not mean to add new foods but simply to vary the menus from day to day with the foods that are wholesome. (b) To make meals as interesting and attractive as possible, that is, they should look appetizing and that the atmosphere at table be cheerful and happy.

(c) To prevent and overcome dislikes. Prevention means developing a taste for bland flavors; enforcing strictly the rule of no eating between meals; avoiding all suggestions about adult dislikes and not forcing foods as indirect methods are much more effective. There are a few children who cannot eat certain food without having digestive disturbances or hives, these cases are quite rare. Wholesome foods are those which have been found to agree with thousands of children, hence when disturbances do occur there may be other causes; for example:

(1) Unwholesome food, or perhaps candy, which has been eaten without the mother's knowledge.

(2) Over-eating due to excitement or highly-seasoned food.

(3) Eating food too close to bath or bedtime. An hour should elapse after a supper of solid food, before the child has a bath or is put to bed. Children who eat a heavy supper are often restless sleepers. The heaviest meal should always be at noon.

(4) Improperly-cooked food, such as a half-cooked potato or an egg cooked in fat.

(d) To supply the daily needs of the body. In order to nourish the child and make him grow, each cell needs certain kinds of material. Balancing menus means supplying each day for the body all that it needs in the necessary quantity.

4. **Well-Cooked Food.**—A good cook, in the eye of modern science, is not one who can make the best combination of seasonings, but the one who knows how to preserve best the natural flavors of foods and make them most digestible and wholesome. It is not only through the serving of scorched, watery and tasteless food that many dislikes for wholesome food have been formed, but through such things as careless washing, over-cooking, under-cooking and improper seasoning. Dislikes are too important to be neglected, for they may eventually lead to undernourishment and serious ailments. Hence, care in cooking and preparing food for children may save thousands of dollars, and thousands of pains and discomforts in later life.

5. **Right Amount of Food.**—The amount of food required for each child will vary with the age, sex, activity and climate in which he lives.

Rain Magis

The rain has stopped; the bright, wet leaves of the trees in the garden are gleaming in the watery light of the sun. The garden is surely different—a vague enchantent is in the air. The straight, bold leaves of the iris are weighted with brilliant drops, the massed delphiniums have turned a deeper blue, and the rose-rambler is glowing with strange fire. Each spider-web before unseen—is now a shimmering net of diamonds, slung from leaf to leaf, and there in the shade, where the grass grows finer, is a crop of spotted toadstools.

Everything is wet and cool. There is a glorious earthly smell, and the perfume of many flowers lingers caressingly among the pale stems. A few bright winged insects venture out from the sheltering leaves, raindrops shower down as a bird rustles among the leaves above, and to me, watching silently, Keate's words are given a new significence:

I started up, when lo! refreshfully,
There came upon my face in plentious showers
Dewdrops, and dewy buds, and leaves, and flowers,
Bathing my spirit in a new delight.

Isabel Hannaford-Smith.