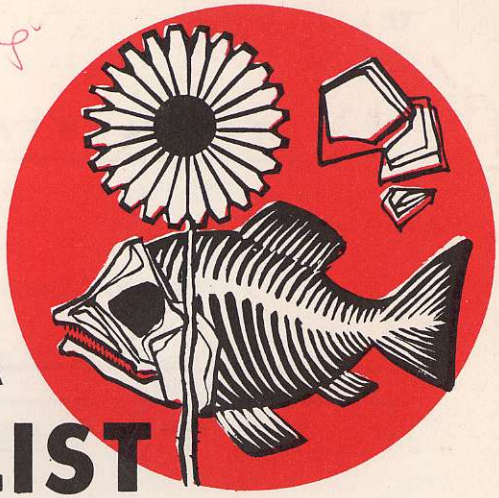
Dec. 1968
Vol. 25, No. 4

Fungus.

Harvey

Nurse logs - by Freeman King



# THE VICTORIA NATURALIST

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Vol.25, No.4 December, 1968

COVER PICTURE

by Al Grass

COVER STORY

## THE SPINY WOODBORER

by Al Grass

The Spiny Woodborer (Ergates spiculatus Lec.) is a member of the family Cerambycidae or Long-horned Beetle.

Long-horned beetles are a group of very small to large, elongate insects which are somewhat cylindrical in shape, with long, thread-like but heavy antennae.

Ralph B.Swain (The Insect Guide) makes the following interesting remarks about the woodborers:

"The mandibles are strongly developed and are situated at the front or at the lower corners of the head. The legs have five segmented tarsi. Almost all cerambycids can fly, but in general they are rather sluggish. They feed on the foliage or bark of plants, chiefly trees and shrubs, and visit flowers for pollen, feed on fungi, or may not feed at all. The eggs are laid in cavities in the bark of the host plant, cut with the mandibles of the female".

Doctor Swain further remarks, "North American Indians used the larger larvae as food".

The specimen in the photograph is about life size and was found in a very sluggish condition on a fallen fir tree. I searched underneath the log and other logs in the vicinity and found several of the large white larvae.

Literature Cited: Ralp B.Swain 1948 The Insect Guide Doubleday.

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## SCAVENGERS No. 2

When discussing certain related activities of different animals, it is usual to start with the lower forms and work up to the higher ones as here the activities are perhaps more developed or perfected. In the case of scavengers, I think it better to reverse this routine and begin with the vertebrates. This is because the larger scavengers, for instance, reduce a carcass much faster than if it was left entirely to the insects or bacteria, although these are often full-time workers. The word "full-time" is used as the larger scavengers are mostly active on a part-time basis only. The smaller scavengers often spend their whole lives disposing of waste material.

In British Columbia, bears head the list of scavengers.

Grizzly bears have a diversified diet. Besides eating a variety of vegetable material and other animals from small rodents to the largest herbivores if opportunity offers, they also do some scavenging. Often, they are pictured catching salmon in a stream. But they do not disdain the dead fish left on the banks after spawning, or carcasses of larger animals killed by other agencies. On the West Coast of Vancouver Island I have several times seen the carcasses of large marine creatures like small whales or sea-lions washed up on the beach. Partially devoured, they were surrounded by bear tracks. This suggests that the local black bears also come out on occasion to feast. So they, too, help to reduce offensive material.

On a smaller scale, skunks operate in the same way. With a diet similar to that of bears, they are also known to feed on carrion.

Some years ago, I noticed about a dozen turkey vultures on Discovery Island. They were feeding on the remains of a dead sheep. With good eyesight, they can detect a dead animal a long way off. (Recent studies have shown that the sense of smell is also well developed in some kinds of vultures).

It is disillusioning, but the eagle, so often seen in fierce attitudes in heraldic designs, is also a great scavenger of dead fish after spawning time. Crows and seagulls are better known as scavengers and can easily be observed on our local beaches.

These then are some of the larger scavengers in this area.

Anthony Dehen.



## NURSE LOGS

Beside the forest trails one can see old downed logs that are covered with new growth. These are called "nurse logs" for they are nursing and giving life to many species of plants and animals. Each and all are helping to perpetuate a living forest.

Inside and outside the log you will find life.

Within the log are many little creatures that are essential to life itself. Beetles of several kinds live here under the bark and in the soft wood. Deep within the wood you may find the carpenter ant or, perhaps, the white grub that in time will be a large wood-boring beetle. Down on the moist bottom may be a colony of termites.

Under a piece of loose bark there may be a little salamander waiting and watching for the tiny fly that inhabits a mushroom growing nearby.

When the log has become soft, the fungi move in and send their long fibres along the cells of the wood.

All these inhabitants are "breaker-downers", creating material to rebuild a wonderful world.

On the outside of the log, the lichens have taken hold. Some will be the crustose, some fruticose like the match stick group, and some may be the foliose that seem to be attached to the log in spots.

Many kinds of mosses spread along the surface. As these break down, they form soil with the help of the dust from the air. After the mosses, the poly-pody ferns may take hold and grow, and so make the media in which flowering plants live.

The flower seeds are brought in by the wind, or by a bird, or, perhaps, in the fur of some small mammal.

Now shrubs can take hold - salal with its ever-dividing roots; the huckleberry brought by the birds; the ocean spray, its light seeds drifting on the wind.

Our log is now very much alive. It is soft and pulpy so that the seeds of the conifers and broadleaf trees may find a place to live. Soon they, too, are established. So, gradually, there is a place for shrew or field mouse, for a bird to build its nest, for bees and other insects to search for and find food and shelter.

After years, the old log has slowly vanished and a new living world has taken its place. Nothing is wasted, or lost. It has gone back to where it came from, back to a green and living world that man himself may survive.

Freeman King.

## FUNGUS FORAY - NOVEMBER 2, 1968

No matter what the weather, Victoria Natural History Society members assemble on the first Saturday of November to take part in a search for fungi. In former years, interest tended to centre on the edible varieties, but now all types of all sizes and colours claim attention.

Francis Park with its wide trails, traversing fairly level ground, affords good walking conditions and its depth of forest debris provides ideal growth material for these plants.

The party of observers numbered 33, together with four enthusiasts led by Dr. J. Bendell who had come over from Vancouver to join in.

In a little over three hours, 96 species were found most of which could be identified on the spot. The largest of these was velvet-top (Polyporus schweinitzii) a ten-inch fruiting body whose mycelium had fed on the roots of the Douglas fir under which it was growing. To a forester the presence of velvet-top means that at least the first eight feet of the tree trunk had been infected with brown cubical butt rot.

In contrast to this dark reddish-brown specimen the smallest "find" of the day was a species of Stilbum growing on Stereum which in turn was feeding on a log. The fruiting bodies of Stilbum are no more than 1/16 of an inch in height - white filaments each topped with a little ball of spores.

Some of the most attractive species were:- amethyst variety of Laccaria laccata; Phlogiotis helvelloides - aptly called apricot jelly fungus; Boletus zelleri wearing a dark-bay cap lined with greenish spores and supported on a red-streaked stem; and Dacryopinex, coloured orange-yellow like its relative witch's butter but having fruit bodies shaped like inverted cones. Even the black fungi have their appeal e.g. earth tongues (Trichoglossum hirsutum), Xylaria hypoxylon which goes by the common name "candle-snuff fungus"; and two nearly black species Craterellus cornucupioides (horn of plenty) and Cantharellus cinereus.

All three of our common elf-saddles were there - Helvella lacunosa, H.crispa and H.elastica. The "saddle" of one specimen was over-laid with a white mould-like fungus, Mycogone roseola, and nearby there was a quite different parasitic species, Hypomyces lactifluorum, a reddish



orange organism which completely covers and feeds on a large white mushroom, usually some species of Lactarius. The attack begins before the host emerges through the soil causing it to be misshapen and unable to form functioning gills. (Incidentally, this parasitic fungus emits a most foul odour when mature).

Although no Amanitas were found a close relative was, i.e. Amanitopsis vaginata with the characteristic volva (cup) but no ring. This was the gray-coloured form whereas the more common one is fawn-coloured. Within a step of this dark-gray 8-inch "giant" and in the same cedar debris there occurred numerous tiny white specimens of Clavicorona taxophila, an inch-high relative of Clavarias. Throughout the park there were many species of Clavaria (coral fungi) e.g. ash-gray C.cinerea, pinkish-buff C.formosa and brownish-yellow C.abietina which takes on greenish tones with age or when damaged. These three belong in the branched group, called by some authors Ramaria instead of Clavaria. Two of the unbranched species were the yellow C.fusiformis and white C. vermicularis which forms dense shining tufts so brittle as to well-nigh defy collecting. (What a pity to give such a pleasing growth a name indicating vermin!!)

There are many species whose spores grow in confined spaces to be released upward instead of merely dropping. These are the Gasteromycetes (puff-balls, earth-stars etc.) One of this type not found on any previous foray was buff-coloured Mycenastrum corium, 2½ inches in diameter with a thick coat so tough as to be almost woody. Unlike its near relatives, when mature this one breaks its coat into irregular lobes or fragments to free its spores.

All species of fungi produce tremendous numbers of spores; for example a mushroom with a cap diameter of four inches would in 5-6 days produce and drop 16,000,000,000 spores. Of course the possession of numerous gills vastly increases the area for spore production. Without gills that 4-inch cap would have a spore surface of 12-13 square inches. With gills, the fruiting surface becomes approximately 200 square inches. Other devices for increasing the spore-bearing area are seen in the "teeth or spines" of the hydnums and in the innumerable "tubes" of the boletes and polypores.

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All the species we found were "at home" under or on conifers or their debris. Two of them, whose mycelia always feed on dead fir cones, were little white Collybia albipilata (gilled) and Aurisclapium vulgare (little spoon) whose "teeth" show it belongs to the Hydnum group.

Entirely different species of fungi will be found under deciduous trees; other kinds in grasslands; some are confined to manure piles or sawdust heaps. Certain species will grow nowhere except on charred wood. And, geographically, there are few if any regions without fungi of some sort, from the jungles and the deserts to the tundras and the polar islands.

Since all green plants (trees, shrubs, ferns, mosses and algae) possess chlorophyll and can "make their own food"(?) one could imagine they look down their noses at fungi compelled as they are to obtain their nourishment from dead or living plants and animals according to whether they are saprophytes or parasites. However, without the saprophytic fungi and their allies, bacteria, nothing would ever decay and the "green folks" would soon be left without the needed components for complete food-making.

No living group, plant or animal, can be truly independent! All life is an endless chain of links - animal life cannot exist without plant food and the "Greens" and the "Non-greens" are dependent upon the others.

The account of the fungus foray for 1967 concluded with a list of four books on fungi. Here are three others you will find helpful:-

1) Common Fungi by E.M.Wakefield (Observer's Series) Publisher: Frederick Warne & Co.Ltd., London and New York.
2) Guide to Mushrooms and Toadstools by Morten Lange and F.B.Hora. Publisher: Collins, St.James's Place, London, England.
3) The Mushroom Hunter's Field Guide (Revised) by A.H. Smith. Publisher: The University of Michigan Press, Ann Arbour, Michigan.

M.C.Melburn

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## HIBERNATION

Winter is a time of judgement. It is a time for sorting the fit from the unfit, the weak from the strong, the wise from the foolish. Throughout nature all species of animals have their own adaptations to cope with winter. The most mobile move to more suitable climates, others increase their insulation and still others become dormant for the worst of the winter. No matter what form of adaptation is used, you can be sure that, come spring, only the very best segment of the animal population has survived to reproduce the species. Without the control of winter, the world would soon be a writhing ball of surplus animals

Migration is the most spectacular adaptation and birds are the classic example. Nevertheless, other animals make equally outstanding journeys. The delicate and graceful monarch butterfly migrates from Canada south to Mexico, Florida and California for the winter. The northern fur seal herds of the Pribilof Islands move as far south as California, Hawaii and Japan.

Man understands migration and increased insulation; after all, we put on warmer clothing and those who are able fly to warmer climates for the winter. Hibernation is something of a mystery to the average person. In fact, it is only recently that scientists have begun to understand what happens when an animal goes into hibernation. Much of our recent knowledge is the result of the space race. The somewhat science-fiction world of space medicine has been investigating the possibility of inducing a form of hibernation in man so that life support requirements on a long space voyage could be reduced.

Hibernation is not sleep. It is a slowing of the life process to the point where the metabolic rate is barely sufficient to maintain life. Without this banking of the fires many animals would have no chance of surviving the winter. An animal which hasn't accumulated enough fat or food to last the winter is doomed. Because of this dependence on body fat the hibernating predator is now in a very precarious position. The predator acts as a concentrator for the chlorinated hydrocarbons used in pesticides and stores them in its body fat. Conversion of the fat during hibernation results in a massive dose of the chemical with often fatal results. Man's pollution of his environment is once more upsetting the delicate balance of nature.

Murray Matheson

## BOOKS OF INTEREST TO NATURALISTS

These titles have recently been added to the stock of the Greater Victoria Public Library:

| | |
|---|---|
| Lovell, Sir Bernard | Story of Jodrell Bank. |
| Milne, L.J. | Patterns of Survival. |
| Street, P. | Animals in Captivity. |
| Bleibtreu, J.N. | Parable of the Beast. |
| Schumacher, E. | Last of the Wild. |
| Ivor, H.R. | I Live with Birds. |
| Pinney, R. | Vanishing Tribes. |
| Hainsworth, M.D. | Experiments in Animal Behaviour |
| Bush Dwellers of Australia | |
| Mansell, E. | Complete British Butterflies in Colour. |
| Terres, J.K. | Flashing Wings. |
| Hyde, D.O. | Sandy: story of a sandhill crane |
| Morris, D. | Primate Ethnology. |
| De Graaf, J. | Lilies. |
| Morse, Mel. | Ordeal of the Animals. |
| Sullivan, N. | Message of the Genes. |
| Buyukmihci, H.S. | Unexpected Treasure. |
| Adamson, G. | Bwana Game. |
| Shenton, E.H. | Exploring the Ocean Depths. |
| Nelson, B. | Galapogos: Island of Birds. |
| Morrissey, C.J. | Mineral Specimans. |
| Harris, M. | Rise of Anthropological Theory. |
| Herbert, D. | Kilauea: case history of a volcano. |
| Behrman, A.S. | Water is Everybody's Business. |
| Gillsater, Sven. | From Island to Island. |
| Terres, J.K. | Songbirds in your Garden. |
| Johnsgard, P.A. | Waterfowl, in their Biology and Natural History. |

(September - October 1968)

G.McBride.



## BIRDS FOR THE RECORD

by G.N. and G.Hooper, 2411 Alpine Cr. (477-1152)

Lapland longspur (6) - Esquimalt Lagoon - Oct.12 - A.R. and Eleanore Davidson

Ring-billed gull (1 adult) - Parksville - Oct.13 - Allen Poynter

Western bluebird (8) - W.Saanich at Wayne - Oct.14 - A.R. and Eleanore Davidson

(4) - Pike Lake - Oct.24 - Terese Todd

Common scoter (4) - Oyster Catcher Bay - Oct.14 - A.R. and Eleanore Davidson

White-throated sparrow (1) - Alpine Cres. - Oct.16 - (thru' Nov.12) Gordon and Gwennie Hooper

Golden eagle (1 imm.) - Witty's Lagoon - Oct.19 - Allen Poynter

(1 imm.) - Pike Lake Oct.19,20 Tuesday Group and Terese Todd

Western gull (1 imm.) - Esquimalt Lagoon - Oct.19 -

(1 adult) - Clover Pt. - Nov.11 - Allen Poynter

Sabine's gull (1 imm.) - Hood Lane - Oct.20 - Ralph Fryer and Grace M. Bell

Snow goose (2) - Martindale Rd. - Nov. 2 -

White-fronted goose (1) -

A.R. and Eleanore Davidson

Great horned owl (1) - Bedford Woods - Nov. 5 - Tuesday Group

Snow bunting (1) - UVic - Nov.10

Golden plover (1) -

Evening grosbeak (8) - Bedford Woods - Nov.11 - A.R. and Eleanore Davidson

A palm warbler reported at Gordon Head, Oct.26, by Allen Poynter (2 previous sightings - Jan.1963, Dec.1965)

Migrants - Oct.12 Common tern; Oct.19 Pectoral sandpiper; Nov.9 Water pipit(30); Nov.10 American goldfinch(25).

Winter residents - Oct.12 Bufflehead, dunlin; Oct.14 Red-breasted merganser, red-throated loon, common goldeneye; Oct.19 Rock sandpiper(2); Oct.20 Sanderling; Oct.26 Old squaw; Nov.10 Skylark(72); Nov.11 Varied Thrush(10).

## AN AUDUBON NEWS RELEASE

An October 21 News Release from the National Audubon Society in New York says that the Society gained 12,000 members in the past year. This month the Society opened its own Western regional headquarters building at Sacramento, California.

Emphasis in the annual report to membership was on "conservation action". Efforts are being made at national and grass roots levels to stir up support for far-sighted use of natural resources.

Under "education" it was reported that the Society last year enlisted 60,000 more children in its Junior Program; distributed 63,700 natural history teaching aids to teachers and students; provided live lectures with motion pictures to 1300 audiences, and helped plan and initiate locally sponsored nature centres in a score of American communities from Florida to Alaska.

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## THE ELEGANT RAT

My cats are encouraged to stop rats from coming into a warm dry house in the fall. As if to show me that they are earning their keep, they often present me with a carcass, sometimes whole, sometimes partial. After hastily burying the first one presented to me, it occurred to me that it was really rather an elegant rat, so I dug it up again for further inspection, and, to the horror of one car passenger and the amusement of another, took it to a meeting to confirm my identification of it as an Alexandrian or roof rat, Rattus rattus. These rats came to America as stowaways in 1775. They are not quite as large as the Norway rat, but have a longer tail. Books describe them as greyish-brown or black, but I should be more inclined to say they were bluish-grey. Apparently they will interbreed with the Norway rat which will also eventually take over from them. They will climb up wall shrubs and damage the fruit of peach trees trained on walls.

Doris Page.

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## THE CONTRADICTORY CATERPILLARS

An October 21 Audubon News Release discusses rural weather prophets and predictions like "Squirrels hidin' away lots of nuts -- goin' to be a long winter."

Not so, says noted naturalist, Hal Borland, in the September-October issue of Audubon, the magazine of the National Audubon Society.

The behaviour of animals has something to do with the weather all right, but it is a commentary on the past six months. When bees put away an extra large supply of honey, when geese have extra thick down feathers, when there's a plentiful harvest generally - these are the natural consequences of a fine summer, not a prediction of the weather ahead.

Borland did a study of the time-honoured woolly - bear caterpillar system of prophecy. The banded woolly-bear is the caterpillar stage of a little moth that feeds on dooryard plantain. It has three bands of colour, a black one at each end and a central one of chestnut-red. The folk-lore rule goes that if the black bands are longer than the red one, the winter will be long and stormy - and vice versa. For a number of years, Borland ran a tally of woolly-bear markings and found that, year after year, the caterpillars divide into three approximately equal groups. ---1/3 say the winter will be long and hard, another third say it will be short and easy, and the rest are undecided, with stripes of equal size.

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THAT SLIDE-TAPE KIT? Our October magazine reported that the B.C. Nature Council had moved to provide a $25 sponsorship to any member club preparing a slide-tape kit of the kind initiated and prepared by York Edwards. There are 80 slides in such a kit. It costs 20¢ to reproduce a slide. So that leaves $9 for purchase of a tape. We have two booklets to our credit - A Naturalist's Guide in 1967 and A Net of Naturalists in 1968. We also have the magazine which, in April, will have been published for 25 years. Can't we manage a slide-tape kit, too? The Gulf Islands Biotic Zone? Fungi at Francis? Garry oak-arbutus association? Let's hear suggestions and make plans.

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## JUNIOR JOTTINGS

During the fall season, the Intermediates had a successful work bee preparing Francis Park for the winter months. In October, an enjoyable afternoon was spent at John Dean Park where the fungus season was in full swing. Our latest expedition was at Francis Park where we explored the various trails which were especially beautiful.

The Juniors have also had several profitable meetings. One rainy afternoon was happily spent watching Skip's slides in the Foresters' House. Our heartfelt thanks to everyone who made this wonderful addition to the Park. The Juniors also had an interesting and thought-provoking afternoon at Goldstream where they observed the salmon returning home to spawn.

Several Intermediates ushered at the excellent Audubon film, "The Real Yellowstone".

When so often it seems we are in a vicious circle of homework, exams and lack of time, our constant inspiration in Skip makes our Saturday hikes especially meaningful to all of us.

Genevieve Singleton

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## DOGS AND DEER

On our farm in the Blenkinsop Valley, we still see deer occasionally. Two years ago I watched a deer come out of the woods of Mount Douglas Park, run downhill across a field until it reached a large pond at the foot of the slope. It swam across the pond, and then ran on up another hill. A few minutes later, a border collie and a spaniel came out of the woods and followed the deer's tracks to the pond. The spaniel promptly ran round the pond and picked up the tracks on the further side. The border collie, baffled at the water's edge, just ran about aimlessly. L.E.C.

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At its November meeting, the Executive nominated a committee of three to replace Murray Matheson as head of the Ornithology Group. Members nominated were Allen Poynter, Allan Schutz and R. Mackenzie-Grieve.

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## "BIRDS OF THE EARLY EXPLORERS IN THE NORTHERN PACIFIC"

This book by Theed Pearse will please bird students and historians alike. It is the result of many excursions to many places. The British Museum was one. There many of the original documents are to be found as well as the bird paintings by W.W.Ellis. When Mr.Pearse attended the International Ornithological Conferences in Finland and Switzerland and elsewhere he pursued his enquiries. The British Columbia Archives had so much material it necessitated his making several visits there. In addition, during the years, he had much correspondence with librarians in Russia, Spain, France and England.

The book was twenty years in the making and its 275 pages are condensed from thousands of notes. It is certainly a labour of love, and the only book of its kind so far published.

I have known Theed Pearse for the last 32 years, been on many birding trips with him, even helped with the typing in the book's early stages, and know he enjoyed the work even though he sometimes found the labour heavy, many of the manuscript indentifications being quite inadequate for later identification.

His research uncovered many documents not previously well known or printed. It also meant the reading of innumerable manuscripts to select from them the bird notes which were usually rather scanty.

The title of the book is well chosen and tells of the first explorers of the area, the Russians from 1729 to 1812, the Spanish who came as far as the Russian territory in the years 1774 to 1794. Among the British, Captain James Cook arrived at Nootka in March, 1778, then Captain W.R.Broughton in 1796. News of the sea otter trade brought the explorer traders, of whom the first was James Strange in 1785 to 1787. Strange was the first man to plant the British flag on the mainland of western North America. The man who really surveyed the coast was Captain George Vancouver in 1792 and 1794.

The book covers the period from the earliest explorations to about 1830 when most exploration had ceased. Distributed by Gray's Publishing Ltd., of Sidney, this thoroughly researched book costs $7.50.

A.R. Davidson.

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## BEFORE MAN

### FLIGHT

One of the technological wonders of the twentieth century is man's conquest of the air, but everywhere he has copied nature. In nature, the main reasons for flights are migration, obtaining food, dispersal and escape from enemies.

Birds and insects are the best known migrants. Birds fly great distances in order to stay within their habitat requirements. We all know about that long-distance flier, the Arctic tern, but did you know that the phalaropes we see at Clover Point in September are dabbling in the Humboldt Current off Peru in January, or that the Sooty shearwaters we occasionally see in the Strait are merely passing through on their way to Tasmania by way of Chile after a flight past Japan and the Bering Sea? Some kinds of butterflies, dragonflies, and grasshoppers migrate equally as far as many kinds of birds.

Food gathering is an important reason for flight. Swifts, swallows, dragonflies and bats capture their food on the wing. Others such as robins, flying foxes (fruit bats) and migratory locusts use their wings to move them to areas where food can be found.

Examples of dispersal are best seen in seeds of plants but dispersal is an important reason for flight in birds and insects.

What about methods of flight?

Spores of yeasts, fungi and ferns are easily carried aloft and transported many miles simply because they are so small and light. This possibly explains why many species of these plant families have such a wide range around the world. Spores may be caught up in the jet stream and travel great distances at speeds rivalling those of man's aircraft.

The cottony seeds of many plants are particularly well designed for spreading into new places whether these areas be recently burned over forest lands or bombed out lots in London. If you look into the sky on a sunny day in late summer you will see thousands of "parachutes" of fireweed, cottonweed and dandelion being carried perhaps hundreds of miles in the ascending air currents.

Less efficient are the winged seeds of pine and maple, but even these "rotors" can travel far in high winds.



Among the invertebrate animals flying is well developed in the insects but young spiders are able to fly by means of silken lines, a method known as "ballooning". Many insects fly far and sometimes at great speeds by rapidly moving either one or two pairs of wings.

The ability to fly is not well developed in the world of fishes. Only the flying fish, of which there are several closely related species, use wings. Flying fish are "gliders", using their wings mainly to escape from underwater enemies.

The lowly frog is usually regarded as being a "stick-in-the-mud" but several tropical species have enlarged membranes between the toes which help them to glide or parachute from one tree to another.

Mammals, like fishes, are not well represented in the air. Best known are the bats of which there are several hundred kinds ranging in size from fruit bats with four foot wing span to the common little brown bat. A few other mammals such as the flying squirrels and some Australian marsupials have become gliders.

In the air birds are supreme. Hawks and vultures stay aloft all day by using rising warm air bubbles. The long narrow wings of shearwaters and albatrosses are admirably suited for gliding on the winds over the ocean.

Wings, balloons and parachutes - these are all found in the kingdoms of plants and animals. Yes! Nature had it first.

David Stirling

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AUDUBON CAMP SCHOLARSHIP FUND: The National Audubon Society in New York announces that a fund to provide scholarships to National Audubon Society camps has been created. The Audubon Camp program, in which adults study natural history during one or two-week sessions in the field at summer workshops, was founded in 1936 by John H.Baker. The fund will be named in his honour. The Society currently operates four of these camps, in Maine, Connecticut, Wisconsin and Wyoming. They are open to all but are designed particularly for teachers, youth leaders, active conservationists and others who are willing to pass on the Audubon Society view or what today is called the ecological approach - the understanding that all life on this planet, including human life, is interdependent and that man therefore courts disaster when he fails to use natural resources wisely.

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PROGRAM for DECEMBER

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|---|---|
| Executive Meeting: Tuesday, December 3 | 8.00 p.m., home of Mrs.S.Prior 1903 Shotbolt Road. |
| General Meeting: Tuesday, December 10 | Douglas Building Cafeteria, 8.00 p.m. Dr.R.D.Bird will speak on "Some Observations on Manitoba Natural History". (with slides) |
| Christmas Bird Count: Saturday, December 28 | Counters are asked to check their areas during the Christmas holidays. Area captains will collect fifty cents from each adult member to cover half the cost of tabulating the continent-wide count. For information please contact Mr.Dave Stirling at 385-4223. |
| | No Bird Field Trip in December. |
| Junior Group: | Meet every Saturday, 1.30 p.m., Monterey Parking Lot, Douglas at Hillside for field trip. Leader: Mr.Freeman King - 479-2966. |

Postponed due to bad weather. 0° Temps. 18" Snow.

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After December 1, the telephone number of our Programs Chairman, Mr.A.D.Turnbull will be 592-6025.

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A Happy Christmas to all our members, and should you receive no magazine at the end of December, this will be a sign that you neglected to renew your subscription. So far we have sent magazines to many members whose fees have not been paid since our fiscal year ended on April 30.

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# VICTORIA NATURAL HISTORY SOCIETY

## OFFICERS 1968-69

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