

Early life of mosquito.

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## The Tree Swallow

The Tree Swallow, sometimes called the White-bellied swallow, is a very pretty bird. The colour above seems to be steely black and again steely green, as the sun happens to catch it, shading to quite black on the tail. In size it is somewhat smaller than the House sparrow, being approximately 5.9 inches long.

It arrives back in Victoria close behind the Vio-let-green swallow, often by the end of March, earlier than in the foothills of the Rockies. The earliest record for Calgary is May 7th, and it has been as late as June lst in that city. It is one of the first birds to leave in the fall for the South. If it is here a shorter time than most birds its stay is during the longest days which it probably needs to catch all the insects it requires to feed its young.

Like all swallows it takes its food on the wing; a great number of harmfull insects are thus destroyed which would otherwise be left as pests to man.

In the juvenile tree swallow the steely green of the back is replaced by a sooty brown.

## The Violet-green Swallow

The Violet-green is the first swallow to arrive in this area each spring. Last year Mr. C.J. Guiguet reported seeing this species on March 17th but this year they did not appear until early April. They are the smallest of our swallows measuring only 4.75 inches but they do not appear to be that small when flying owing to their long pointed wings.

Like the Tree swallow it is all white below making it very difficult to distinguish one from the other when seen in flight from below. The white on the Violetgreen however is more extensive, continuing up to the face and over the eyes; there is also a distinguishing
patch of white on either side of the rump. One needs a vantage point where the bird can be looked down on in flight to see the characteristic violet-green plumage as it flashes and changes in the sunlight. The juvenile Violet-green swallow is greener than the immature Tree swallow which has a brownish cast.

Violet-green swallows become quite used to people; at Big Bend, where they are even more common than here, a pair nested under a verandah of the hotel where the tramp of feet did not disturb them in the least.

## H.D.R.S.

## Mosquito Life History

Mosquito larvae ("wrigglers") are commonly found in temporary pools, rain-barrels, lily ponds and other bodies of standing fresh water at this time of the year. They result from the hatching of small rafts of eggs laid by the female on the surface of the water. After a few weeks of growth, the time depending upon the temperature and the amount of food available, the larva changes to the pupa which is also an active swimmer but does not feed. Soon the pupal skin splits to release the mature insect.

During the larval and pupal stage these pests can easily be killed by pouring a little light oil onto the surface of the water containing them. The film of oil prevents the breathing tube being thrust through the water's surface with the result that the insects quickly suffocate. A few goldfish will also aid in keeping a lily pond free of developing wrigglers.

PLANT COMMUNITIES
When we wander through the woods, sometimes stopping to stand spellbound by some lovely arrangement or grouping of trees, flowers and ferns, set against moss covered rocks or grassy slopes, we are apt to think that the scenes so displayed are just happy accidents of nature. Happy scenes they are, but not accidental, as investigations into the habits and makeoup of each member of the varying plant communities have shown. All the members, from the tallest tree to the smallest moss, are there because they enjoy or need each other's company and because they are in complete harmony, not only with each other, but with the environment

Few of us realise that a plant community consists not only of the herbaceous species present, or the shrub species, but that it also includes the trees, the mosses on the ground, the lichens on the trees and even the micro-organisms of the soil, all complementary to each other and together forming an entente cordiale which causes one to sigh that human communities cannot emulate them.

Within any region there are many different plant communities and each community is the manifestation of a different environment. The species present on a rich, highly productive soil are different from those found on a shallow, dry soil even though these two sites may be only a few feet apart. The acidity of the soil, its moisture holding capacity, the plant foods present, the aspect of the ground, its elevation, are a few of the many variable factors which influence differences in the composition of plant communities within one climatic region.

Many years ago keen observers realized that certain plants are indicators of different degrees of productivity and this information has been put to practical use. Right here on Vancouver Island the quality of the soil for producing Douglas Fir may be estimated from the species present in various plant communities. Before enlarging on this perhaps it should be pointed out that the communities differ both in degree and kind. For instance a number of species are present in several communities, but their presence will be marked by characteristic differences in vigour and abundance. Other species
are highly selective and will grow in one community only.
Now that the necessity for artificial aids in the regeneration of our forests is becoming increasingly evident any method of determining the sites or areas which will produce the best timbers in the shortest period of time is doubly welcome, and this is one way in which the serious study of plant communities can prove of inestimable value.

A plant community which indicates the highest site quality in our Douglas Fir forests is characterized by the presence of vigorous ferns such as Polystichum munitum (Sword Fern), Asplenium cyclosorum (Lady Fern), Struthiopteris spicant (Deer Fern), Adiantum pedatum (Maidenhair Fern), Phegopteris spp. (Beech and Oak Ferns). Associated with ferns are a number of the Liliaceae including the following species: Trillium ovatum (Wake Robin), Maianthemum bifolium (Wild Lily of the Valley), Clintonia uniflora (Queen's Cup), Disporum oregana (Fairy Bells), Veratrum viride (False Hellebore), Smilacina spp. (False Solomon's Seal) and Streptopus spp. (Twisted Stalk). Other indicator plants include Claytonia sibirica (Miner's Lettuce), Luzula spp. (Wood Rush), Tiarella spp.(False Mitrewort), Achlys triphylla (May Leaves). Two shrub forms also are found, Fatsia horrida (Devil's Club) and Rubus spectabilis (Salmonberry). Of the mosses, Mniums are good indicators, particularly Mnium Menziesii (the one like a tiny palm tree).

The plant community associated with the poorest site quality for Douglas Fir is very different. Gaultheria shallon (Salal) and Berberis nervosa (Oregon Grape) are abundant and vigorous dominants. Spiraea discolor (Ocean Spray) is a conspicuous shrub. The herbaceous plants are limited to a few species, of which only one or two are indicators of the site quality, Chimaphila umbellata (Prince's Pine) is perhaps the most common. The Monotropaceae family also seem to prefer dry, poor sites, for Pine Drops, Pinesap and Newberrya are not rare. Corallorhiza spp. (Coral Root) and Boschniakia strobiliacea (Poque) also occur. There are mosses of poor site indicator value too, Calliergonella Schreberi, Dicranum fuscescens and Rhacomitrium spp. being quite common. The best indicators of the poorest site for

Douglas Fir however, are tree lichens when found low on the trunk. Parmelia (the Pale Green Lichen), Usnea (Old Man's Beard), Sphaerophorus and Cetraria are common genera.

In these sites the indicators of the good site are entirely absent except Polystichum munitum, Achlys and Trillium and these species reflect poorer site types by growing with reduced vigour. Polystichum, for instance, in the highest site type is a large plant of 30 to 50 fronds up to 40 inches long. In the poorest site type Polystichum is a struggling plant of 3 to 5 fronds of poor colour.

These two extremes are examples of five basic plant associations which are used to classify Douglas Fir soils into quality classes, and this is but one example of the practical uses to which a study of plant communities may be put.

John Nutt.

## Beacon Hill Notes

The swans have been indulging in ornithological musical chairs. The descendants of the Royal pair, whose cygnets live vigorously for about five months and then become unaccountably deceased, have gone to Vancouver for a change of air. Their place at the top pond, has been taken by the four surviving cygnets of the five which were hatched at the east end of Goodacre Lake last May. They have been chased away by their parents, who resent "back seat" advice on nest building. The pair living on the west end of the lake, whose eggs have always proved to be infertile and who were a menace to baby ducks, have been banished to Elk Lake, and in their stead reign a very splendid pair, captured by park officials in that same place.

Having developed into a "killer", the magnificent Silver pheasant, which had the run of the deer paddock, is in "durance vile". His victims were the Silky bantams.

Unusual visitors include, one male European widgeon (Mareca penelope). Slightly larger than its American cousin but with the usual bald pate, it is very easily
identified by its brick red head and neck. Then we have two drake mallards, nearly twice the usual size. These are not just excessively fat birds, the beak and legs being proportionately large. Last and least there is one lonely little Coot.
"Susie" the albino mallard duck, somewhat henpecked by her kind, is quite capable of taking care of herself and is greatly admired.

Having shed his antlers (a month earlier than usual) the buck deer, has to take "backwater" from some of his family of seven, they are no longer afraid of him.

Finding a hole in the wire, one of the small animals, which a little girl calls "Chipmonkeys", set out to see the great big world. By a million to one chance, a cat was stalking birds in a nearby laurel bush. That was the end of the chipmunk, and we hope of the cat, as a very annoyed sailor picked it up and took it away.

The handsome grey squirrel has gone where all good animals go, when they die, viz. to Dr. Carl.

## Migration Record

During the summer and fall Mr. Clay would like members to make notes on migrations.

Where ever possible the species and sub-species should be noted and details of plumage etc. reported. Information in general terms, such as Swallow, Plover, Sandpiper are of little use in compiling migration records. If information is sent to Mr. Clay, he will compile it for publication in the Naturalist next winter.

## Botany Note

Mr. J.W. Eastham has sent the Society a copy of his paper "Observations on the Flora of the Southern Rocky Mountain Trench in British Columbia", which was presented before the Royal Society of Canada in June 1949. It is in the hands of the editor and is available for loan. W. T.

The members were pleased to return to the comfort of the Provincial Library for the April meeting. We were sorry to learn that the President, Mrs. Hobson, was ill (she is up and around again now); Mr. Clay carried on as chairman in his usual efficient manner.

A letter was read from the Honourable E. T. Kenney, Minister of Lands and Forests, informing the Society that the Provincial Government was unable to accede to the request of the Victoria Out-Door Club and supporting groups, including The Natural History Society, to have the Mount Brenton area set aside for park purposes.

The Secretary also read letters of acceptance as Honourary Presidents from the Honourable W. T. Straith, and Mr. J. W. Eastham.

Mr . Clay passed around an illustrated article from the London Sunday Times with good pictures of trumpeter swans in Saskatchewan.

As Mr. E. G. Oldham, chief of the Parks Division, had been called away on department business, his paper on "Resource Use For Recreation" was presented by his assistant Mr. D. L. MacMurchie. Speaking as a hopeful ancestor for future generations and not as a government official Mr. MacMurchie stressed the necessity of conserving our natural resources for all the needs of all people for all time. He could not agree with a prominent industrialist's statement to the 1949 Resources Conference that, the only values to be considered in resources development were dollar values. We have an enviable record in our ability to extract wealth from forests, mines, and fisheries, but the B. C. record of increasing juvenile delinquency and a three-fold increase in our insanity rate were not so enviable. Human values are greater than dollar values and planned use of our resources for recreation is one of the best uses to which we can put them. Recreation is anything that people spend leisure time doing, hiking, fishing, fighting, attending concerts, drinking in beer parlours, slugging people in back alleys, breaking street lights, etc. etc. The way people spend their leisure is more important than the way they spend their working hours. Police and medical men are unanimous in their belief that properly directed use
of leisure is the best answer to the increase in delinquency and mental illness. It was in his leisure that Abraham Lincoln read the books and developed the character that made him the great emancipator and it was in his leisure time that Hitler wrote the book and dreamed up the ideas that finally destroyed him and a part of the world with him.

Resource utilization for recreation must meet the needs of all the people and setting aside large tracts of mountain scenery, inaccessible to any but rich big game hunters or alpine enthusiasts, will not fill our present need no matter what such tracts may hold for the future. Our greatest immediate need is breathing space that is accessible to urban populations which people can use withe out mortgaging their wages for the next twelve months. If the younger generation in our cities could be provided with open spaces within a quarter or half a mile of their homes, where they had a feeling of space and elbow-room, and if their energies could be directed to healthy recreation, we could dispense with police protection for youngsters attending public dances. Mr. MacMurchie related his own experience in trying to find a place to picnic between Victoria and Jordan River. They found numerous evidences of business enterprise and endless "no trespassing" signs, but not one little stretch of foreshore where the children could hunt crabs and seastars or skip stones across the water. Finally they ate their lunch, sitting in their car beside the dusty road, as thirty or forty other disappointed optimists were doing. The children did not complain a great deal, but one wonders how long they are going to stand for these frustrated trips into this premempted countryside before they decide there is more fun hanging around street corners near home and listening to "be-bop" on the local juke box, possible recruits for one of the teeneage gangs that are, or should be, causing heart searchings by every adult in Victoria. The U.S.A. has become so alarmed at the loss of access to lake, stream, and sea-shore for the public that they are spending millions to try and correct mistakes from earlier unlimited exploitation. We seem to profit little from these horrible examples to the south and east of us but we have one advantage. Since 1910, B. C. has set aside large areas of potential recreational
value and smaller areas, more accessible to the general public, are only waiting funds to develop them into ideal camping, picnic or hiking, and skiing areas. Let us hope that in this respect our grandchildren will be prouder of us than we are of our grandparents.

## W. T.

New Bird Book: "Audubon's Birds of America", popular edition, 1950, Macmillan Company. Price \$3.95. Contains 288 full-colour reproductions of Audubon's famous bird pictures, each with a short note on distribution, life history and size。 About 190 British Columbia birds are represented. A well written introduction by Ludlow Griscom rounds out this attractive book.

Mr. Arthur Flett of Duncan reports that six western bluebirds spent the winter in the Duncan area.

Answer to last month's Junior Puzzle:
Across: 1. Do, 2. Ax, 3. Aid, 5. Ewe, 7. XI,
8. Bone, 10. Ink, 12. No, 14. Ft., 15. Eye.

Down: 1. Dog, 4. Iron, 5. Exit, 6. Win, 9. Note, 11. Key, 13. V.

Although this is the last issue of the Naturalist until next fall I hope you will keep it in mind during the summer and continue to send in interesting items so that the publication will be a reflection of the ideas and interests of the members of The Victoria Natural History Society. I think it would also be of interest to the readers if the leaders of field trips reviewed their summer activities in the Naturalist during the winter.

Summer should be a good time to interest nature lovers who are not already members to join our Society. If you have any friends who are interested get them out on some of the field trips and, if it will help, ask for a back number of the Naturalist to be sent to them. Of course this is a limited offer as we do not have too many back numbers but they will be well expended if we can recruit fifty or so interested new members. This would not only be a service to the study of nature in the district but would assure the continuation of our publication without increasing fees.

Regarding the increased cost the impression may have been given that this was due to large increases in the charges made by our printer (Monks Multigraph Letter Service). Actually, there has been very little increase in this but we are now paying eight per cent Federal tax and the Provincial sales tax. These taxes account for practieally all our deficit.

Mr. and Mrs. C. L. Whitby of 640 St. Patrick Street report a robin repeatedly striking a window many times a day and for a period of many days commencing April 12th. The usual explanation for such behavior is that the bird is a male which mistakes its reflection in the glass for a rival.

Mr.J.Edge of Carey Road, Victoria, reports seeing two yellow headed blackbirds on April 19, 1950.

With the field trips drawing nearer the matter of transportation facilities to the various objectives becomes of special interest. It is hoped that those who have space in their cars will either fill them with member friends wishing to go (who have no cars), or will notify the group conveners of the number of seats available and where passengers may be picked up. Those who would like transportation are asked to get in touch, SEVERAL DAYS AHEAD, with the group convener. In the case of general trips for all groups, those who have car space and those who want it, should contact Mrs. Hobson (after May l3th at G.1001) at least a WEEK before the intended trip.

Members will make their own food arrangements alo ways, and their own drink arrangements unless meeting at the house of a member.

May we remind members that field trips imply walk= ing and sometimes climbing.

It is not always possible as early as April, to give detailed plans for trips in August or even June. In the case of geology trips tides can be an important item, and weather influences bird migrations, etc. Interested members can always obtain details of trip ar rangements from the group conveners at least ten days ahead. The executive will also put notices in the papers.

Field glasses are essential for ornithology trips and a note book and field guide are advisable.

We hope all members have a very enjoyable and satisfying summer.

A new form of activity among various species of tits is spreading in England at a great pace. This is paper snatching. In a number of places they invade houses and tear off wallpaper, blotting paper, newspaper and labels, especially labels it seems- sometimes carrying off bits, but more often merely tearing and teasing. Sir W. Beach Thomas says there is little doubt of the newness of the habit or its sudden extension. In this instance also it seems to be pointless.
1950.

Friday AUDUBON SCREEN TOUR: Prince Robert House at
May 5: 8 pom. Mr.Alexander Sprunt,Jr., "From Coast to Coast".
Saturday BIRD GROUP FIELD MEETING: Meet at end of May 6: Killarney Road, Cadboro Bay, at 2 p.m. Cadboro Bay bus leaves B.C. Electric Bus Depot, Pandora Avenue, at l:30 pom. Mr.J. O. Clay.

Tuesday GENERAL MEETING: in the Reading Room of the May 9: Provincial Library at 8 pom. Speaker:-Mr.V.E. L. Goddard -- "Locel Wild Flowers", illustrated.

Wednesday GEOLOGY: Visit Minerology Museum 2 pom. LegisMay 10: lative Building grounds.

Saturday BOTANY GROUP FIELD MEETING: Meet at the home May 13: of Mr. and Mrs. G.A.Hardy, 3961 Blenkinsop Road, at 2 pom. Cook-Maplewood bus leaves V.I. Coach Lines Depot at 1:25. Rev.T.Taylor.

Saturday GEOLOGY GROUP FIELD MEETING with Mr.G.E.Winkler May 20: to Glintz Lake, (state of roads permitting) or to East Sooke. Starting at 1 pom. Please telephone enquiries for transportation to Mr 。J. H. Whitehouse. B. 1684.
Saturday BOTANY GROUP FIELD MEETING with Mr. Nutt, Forestry June 3: Department. Time and place to be announced later. Rev. T. Taylor.
Saturday BOTANX GROUP: Arboretum at the Experimental July 8: Farm, Saanichton. Meet at the Experimental Station, Office Building, $2 \mathrm{p} . \mathrm{m}$ 。Mr. H.B. Binny.
Saturday GENERAL FIELD MEETING: Alloday trip to Jordan
August 5: River. For transportation arrangements please telephone Mrs.J. Hobson, G. 1001.

## JUNIOR NATURALISTS

Saturday Will be the last Saturday morning meeting of the May 6: Junior Naturalists until the Fall season. Note that Juniors may attend the regular field meetings if accompanied by an adult.

## Victoria Natural History Society

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Ornithology: J. O. Clay.
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Telephone: B 4975.
Annual dues, including subscription: Single, \$2; Family, \$3; Junior, \$1.

## AFFILIATED SOCIETY.

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## To

