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(See also inside back cover)

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#### THE VICTORIA NATURALIST

## Published by THE VICTORIA NATURAL HISTORY SOCIETY

VOL. 31, No. 7

MARCH 1975

## NOTES ON SOME BRITISH COLUMBIA DRAGONFLIES

by Robert Cannings

Lonesomely clings the dragonfly to the underside of the leaf
Ah! the Autumn rain! - Yayu

Dragonflies are an ideal group for naturalists to study. The ecology of both the larvae and adults is fascinating. Like birds, the adults are colourful fliers with interesting mating and territorial behaviour. They were probably first called dragonflies because of the superstitious fear these bold and strange insects instilled in people. They are, however, real dragons to other insects of the air - flying dragons, magnificent predators.

Among the most ancient of insects, dragonflies are far older than flowering plants, as old as the first reptiles. Fossilized, 300 million year old dragonfly wings are found in the Carboniferous Period and are known from every geological period since. As the pattern of wing veins is used to classify dragonflies, our knowledge of their "family tree" is better than it is for most other animals. They have evolved without much alteration during this enormous period of time - a triumph of evolutionary conservatism in a world where change is usually synonymous with survival.

Cover

The Black Sympetrum (Symperum danae)

Drawing by Rob Cannings (after P. Robert)

There are over a million species of insects; of these only 5000 are dragonflies, the Order Odonata. "Odonata" is derived from two Greek words meaning "toothed jaws", a term that well describes these predators. There are two distinct suborders. The Zygoptera, sometimes called damselflies, are slim and slow of flight. "Zygoptera" means "joined wings"; their equal-sized wings are held together above the body when at rest. The Anisoptera are robust and fast flying. The hind-wings are broader than the forewings, thus the name meaning "unequal wings".

Of the 185 species found in Canada, 76 are known from this province. Most belong to groups found around the northern hemisphere. The southwest coast and Okanagan regions have the richest fauna due to a large overlap here in the ranges of these northern groups and some forms of southern origin. The following discussion does not mention all the 76 species and 23 genera of our eight families, but it gives an idea of the variety of dragonflies found in British Columbia.

The Zygopteran family Lestidae has one genus in British Columbia, *Lestes*, with four widely distributed species. The adults are usually coloured metallic brown and green and are our largest damselflies.

The Coenagriidae is a large damselfly family with six genera and 15 species in British Columbia, mainly with bluish and black colours in the males and brown in the females. Species of Argia often fly away from water and prefer landing on the ground. Amphiagrion abbreviatum, our only damselfly with both sexes red and black, lives in southern British Columbia. Our smallest damselfly is Nehalennia irene, a delicate green insect found in the interior. Most of the small blue damselflies well known to naturalists are called Enallagma; we have six species. Closely related are Coenagrion and Ishnura, the latter showing the greatest tendency towards a second colour pattern

in the females where the blue-green is replaced by orange or yellow. One species, *Ishnura cervula*, shares with *Enallagma boreale* the longest flight period, from the beginning of May to late October.

Our only representative of the most primitive of living Anisoptera, the Petaluridae, is *Tanypteryx hageni*, a very rare dragonfly of the Cascade Mountains. Specimens from near Cultus Lake and Yale are the only Canadian records.

The Cordulegasteridae is represented by only one species, the largest in the province, Cordulegaster dorsalis. Almost nine centimeters in length, this yellow and black dragonfly patrols coastal streams.

Along with *Tanypteryx*, the Gomphidae are the only Anisoptera in British Columbia with widely separated eyes. They are mostly black and green or yellow and spend much time squatting on the ground. We have three genera and six species. *Gomphus*, although the largest genus in North America with 51 species, is represented by only two uncommon kinds from the southern interior.

The members of the Aeshnidae are tireless hawkers of the upper air and include the admirable Anax junius, a resident of southern British Columbia that is even larger in wingspan than Cordulegaster. Our largest genus, Aeshna, has 13 species most of which are large and usually brilliantly marked with blue. Aeshna californica is one of the earliest spring dragonflies, often emerging in late April.

The Corduliidae contains four genera. Somatochlora is a large circumpolar genus that has nine species in British Columbia. These metallic green insects are rather locally distributed, preferring upland bogs or sources of mountain streams. The similar Cordulia shurtleffi is widespread and common. Fast flying Macromia magnifica is found uncommonly in the southwestern interior. Our two

species of *Tetragoneuria* are interesting; they often lay their ribbons of eggs in communal masses.

The cosmopolitan family Libellulidae is the most dominant of the Odonata, comprising about one quarter of the known species. In British Columbia it is the largest, containing six genera and 22 species. The adults rarely stray from water; they habitually perch on conspicuous objects, including people. Libellula is notable for the striking dark bands on the wings of some of its five species. Erythemis simpicollis changes from bright green to blue with age. Pachydiplax longipennis ranges widely across North America but in British Columbia is known only from southern Vancouver Island. The autumn-flying genus Sympetrum is well known, for seven of the eight species are brilliant red; only Sympetrum danae is black (cover). Some of the little white-faced species of Leucorrhinia are common everywhere, but are most abundant in northern bogs.

The flight of dragonflies is perhaps their most notable feature. In most insects wings are moved not by muscles attached to the wings but by muscles attached to the inside of the thorax. The contraction of these muscles changes the shape of the thorax, and the wings, being attached are levered up and down. In dragonflies, however, the wings are worked by muscles attached directly to them. Thus all four wings can move independently, resulting in amazingly agile flight.

The unique slanting of the thoracic segments has pushed the legs forward and the wings backward. This helps stabilize the flying insect when it captures prey in the basket formed by its spiny legs. In addition, the whole head is a delicate organ of balance. Differences in its position relative to the body are adjusted by wing movements.

The newly emerged adult is soft and weak, the body pale yellow. Full development of adult

colour often takes several days. When the young dragonflies have survived this early period in which they are very vulnerable to predation, they scatter and spend about a week feeding. They then return to habitats near water where males begin patrolling. Females seldom appear over water except when pairing or laying eggs; the males are so aggressive that for their own safety the females must lead a secretive life!

At this time differences in the habits of various groups reduce aggressive encounters between dragonflies. At a summer pond it is usual to find the Coenagriidae flying and perching very low over the water among emergent or floating plants, the Corduliidae slightly higher around the margin or out over open water and the Aeshnidae patrolling widely at a height of several meters. Perchers such as the Lestidae, Gomphidae and Libellulidae usually rest on or near the shore.

Within such a localized area, males of the same species may defend territories. This behaviour is probably most important in preventing the disturbance of courtship and egg laying. Mortality may be high from aerial battles. As in birds, the occupant of a territory usually is the victor over any intruder. Threat displays have also evolved. For example, the male of Libellula lydia chases off other males by displaying his white abdomen but when chasing females he keeps his abdomen lowered.

The method of dragonfly mating is unique in the animal kingdom. The genital opening of the male is in the usual insect position at the end of the abdomen, but before mating the male transfers the sperm to a complicated accessory organ on the underside of the base of the abdomen. Mating procedure is variable. Typically the male pursues a flying female, lands on her back and grasps her head with claspers on the tip of his abdomen. The "tandem position" results (see cover). The female then curls her abdomen around below and contacts

the male's accessory organ; the sperm is transferred. Everyone has seen paired dragonflies flying
like this, the female on her back. The female
then either lays her eggs still attached to the
male in the tandem position (many Zygopterans and
Libellulidae) or may lay them unattended
(Aeshnidae). In certain species (for example,
Libellula) the male hovers near the ovipositing female, chasing off interested males.

Those species with ovipositors (Zygoptera, Petaluridae, Aeshnidae) lay their eggs in plants and floating debris. Many Zygoptera descend beneath the water to lay their eggs and may remain submerged for over an hour. Odonata lacking ovipositors usually release their eggs into the water (Cordulidae, Libellulidae). In swift streams, Cordulegaster shoves her eggs into the mud and the eggs of Gomphidae develop filaments that tangle the eggs amongst stones and prevent them from being washed away.

The development of the egg and larval stages is variable. Eggs usually hatch in under a month, but in some groups (Lestidae) they overwinter. There may be ten to fifteen aquatic larval stages before the adult emerges. This may take from five months (species in temporary pools) to three or four years (primitive, cold water forms such as Tanupterux and Cordulegaster). Larval adaptations are associated mainly with respiration, feeding and concealment. Larvae may be divided into three general categories. The "climbers" are streamlined, stalking predators with highly developed evesight that live in submerged vegetation (Zygoptera, Aeshnidae). The "sprawlers" (Libellulidae, Cordulegasteridae, Corduliidae) live in a slothful life amongst mud and bottom trash, concealed from their victims. Macromia lives on soft mud, supported by very long legs with which it senses the prey's vibrations, much as a spider does. The "burrowers" (Gomphidae) completely bury themselves in the bottom mud with only the tip of the abdomen extended like a snorkel for

breathing. Primitive *Tanypteryx* burrows in the moss of mountain bogs, coming out at night to hunt on the surface.

Larvae have developed a labium ("lower lip") that is enormously enlarged and armed with hooks. This is folded beneath the head, but when moving prey is in range it is shot out by blood pressure, seizes the victim and is drawn back to the mouth.

Zygopteran larvae derive oxygen from three leaf-like gills on the tip of the abdomen. Anisopteran larvae, however, pump water in and out of the rectum and oxygen and carbon dioxide are exchanged through its inner surface. This pumping is also used as a method of escape - water is squirted out backward and the larva disappears, jet-propelled.

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#### THE ZODIAC

by David Stirling

"The Ram, the Bull, the Heavenly Twins, And next the Crab, the Lion shines, The Virgin and the Scales, The Scorpion, Archer and Sea-goat. The Man who held the Watering Pot And Fishes with glittering tails."

If you can remember this rhyme you will remember the signs of the Zodiac in correct order.

In ancient times, most men were hunters or pastoralists who slept out under the stars. The stars became an important part of the lives of these early men -- telling the time, the seasons, when animals migrated; and later when man grew crops, the dates of sowing and reaping. When man's society became dependent on domesticated plants and animals, the study of the stars became even more important and became properly the domain of the priests, for early religions grew out of a sense of

wonder and fear of nature which controlled man's destiny and often meant life or death for the individual or even the entire tribe. Since the phenomena associated with the changing seasons coincided with the appearance in the eastern sky of certain constellations it was only logical to assume that these stars controlled the seasonal rhythm of the earth.

The Chinese believed that the world of the stars was exactly like the world of men (China) governed by the same laws as China. As long as this happy state of affairs persisted there would be peace and plenty, but should the world of men get out of step with the heavenly world there would be war and famine. The reason that the earthly world sometimes got out of synchronization was entirely due to insufficient knowledge or lack of skill on the part of the astronomer-priests (positions corresponding to modern top civil servants). When this happened, the unfortunate astronomer lost both his job and his head. This led to a rapid development of astronomical knowledge and a high standard of public service. Unfortunately, today, these fine old traditions have been abandoned.

The Zodiac is made up of twelve stellar beings arranged along the plane of the ecliptic. The ecliptic is the apparent path followed by the sun, which is a circle running 23° north and south of the equator.) The sun rises in the same group of stars at the same time every year, hence the belief that these constellations controlled the seasons. The Zodiac was invented by the Chaldeans in an attempt to explain the seasons and divide the year into sections. This was necessary for the important business of sowing and reaping and also because man has ever tried to establish order in the universe. We can imagine the power and prestige of these ancient priests when they "invented" order in the universe. Everything fell into place so nicely. The sun took twelve "moons" to complete its journey through the seasons.

Twelve constellations were seen in the heavens and they coincided with the path of the sun. These constellations were not mere stars, they were heavenly beings with supreme power over the sun and therefore controlled the fate of man. Did not the shortest days of winter occur when the sun rose in Scorpius, the Scorpion? It was "obvious" that the sun was being devoured by this beast. Then Sagittarius, the Archer, rescued the sun conveniently at the winter solstice. Doubtless great sacrifices were needed at this time to humour Sagittarius and appease Scorpius.

The year not only had twelve moons, it also could be divided neatly into four parts - winter solstice to spring equinox; spring to summer solstice; summer solstice to autumn equinox and autumn to winter solstice. And again these divisions occurred when the sun was in certain constellations. The priests were happy and there were more sacrifices.

Unhappily, the ancient astronomers had not reckoned on the precession of the equinoxes. Several centuries passed before any change in the position of the sun relative to the stars was noticeable but eventually the truth was out - the priests had erred. They were not infallible after all. Now it was the priests that were sacrificed.

The signs of the Zodiac beginning with the spring equinox are: Aries, the Ram; Taurus, the Bull; Gemini, the Twins; Cancer, the Crab; Leo, the Lion; Virgo, the Virgin; Libra, the Scales; Scorpius, the Scorpion, Sagittarius, the Archer; Capricornus, the Sea-goat; Aquarius, the Water Carrier and Pisces, the Fishes. The Zodiacal constellations are not seen at their best in summer in northern latitudes as the tilt of the earth places these stars far to the south.

In summer Leo is setting in the west. In the time of the Chaldeans and early Egyptians, Leo was the Zodiacal constellation of mid-summer, the days of great heat, when lions come in from the wilderness to the rivers and water holes striking terror into the hearts of the herdsmen.

Other "signs" of the Zodiac visible in summer are, Virgo, a sprawling unprepossessing constellation, faint Libra, Sagittarius and brilliant Scorpius.

Scorpius dominates the summer sky much the same as Orion dominates the winter sky. In more southern latitudes where the first great civilizations evolved, Scorpius was one of the most brilliant constellations in the clear desert sky. Because Scorpius is easily recognized as the form of a scorpion and because it tries to capture the sun at the winter solstice it was identified with darkness and fear - a malevolent constellation.

Under what sign of the Zodiac were you born?

\* \* \* \* \* \*

## SKIPPER SAYS

by Freeman King

In March, in this part of the world, spring has come to us again and our Green Living World reawakens. Spring flowers appear and among the first, nestled amid its delicate lace-like foliage, is the bright yellow bloom of Spring Gold.

But look at a rocky outcrop that faces south and you may find the opposite leaves of Blue-eyed Mary and perhaps even the delicate little blue flower appearing at the apex of the leaves. Nearby you will also find the two pale green leaves of the Monkey Flower. These will be worth another visit in the not too distant future.

Now go to some open place and you will find the rush-like leaves of Satin Flower. You will be able to identify it by the bulge in the middle where the flower will eventually appear. The flower does not last long - a matter of a day or two - before it fades away again.

Yes, you will be able to find Chickweed too. Its white, star-shaped flower springs up in many places. And if you can find some grassy slope look for the tiny pinkish flower of the Storksbill -- and maybe some early vetch.

And back in a marshy spot you will find the purple headed Coltsfoot. This flower appears before the leaves emerge.

Douglas Firs will be showing their new terminal buds and, before long, the little male cones will be standing out on the twigs. Roadsides will be tinged with the colour of Alder catkins, with some Hazel mixed among them. The Hazels will soon show pollen on their catkins. To see the little bottle-brush shaped, scarlet flower you will have to look close along the stem.

If you know where the Calypso grows, take a moment to search for their dark green leaves spread close to the ground. Did you know that there is only one leaf to each plant?

And if you find an ant's nest you'll see these little creatures busy repairing the winter damage to their nests and possibly the depredations of the flickers who love to dig up the nests in winter.

Yes, go out and enjoy the wonderful things around you for they are part of you, and you are part of them, for nothing can go it alone in this world.

\* \* \* \* \*



Goodwill.

# BIRD REPORTS

by Jack Williams

RED-THROATED LOON - Jan. 18, Billing's Spit (2), Ron Satterfield and Vic Goodwill. PIED-BILLED GREBE - Jan. 18, Billing's Spit (1), and Whiffen Spit (1), Ron Satterfield and Vic

WHISTLING SWAN - Jan. 2, near Billing's Spit (1 ad.), the Goodwills; Jan. 4, Martindale (1 ad.) Jan. 18, Sooke River (1 ad.) and Jan. 25, Puckle Rd. (1 ad. & 5 imm.), Ron Satterfield and Vic Goodwill.

TRUMPETER SWAN - Jan. 2, near Billing's Spit (2), the Goodwills; Jan. 18, Sooke River (3 ad.), Ron Satterfield and Vic Goodwill.

WHITE-FRONTED GOOSE - Jan. 4, Interurban Pond (1 ad.), Ron Satterfield and Vic Goodwill GADWALL - Jan. 25, Quick's Pond (2 males), Ron Satterfield and Vic Goodwill.

COMMON TEAL - Jan. 27/28, Ascot Pond (1 male) the Goodwills, John Scheiber, and the Tuesday Group. REDHEAD - Jan. 20, N. Cowichan Ponds (1 male) the Goodwills.

RED-NECKED DUCK - Jan. 25, Martindale area (92), J. Piuze and Vancouver Birders.

BARROW'S GOLDENEYE - many sightings from many locations, highest count 5, John Fitch, Gerry Gardner, Jack Williams, Ron Satterfield and Vic Goodwill.

BLACK SCOTER - many sightings from Robert's Bay to Island View Beach, highest count 10 at Island View, Jack Williams.

RUDDY DUCK - Jan. 12, Robert's Bay (10), Jack Williams.

GOSHAWK - Jan. 2, Otter Point Rd. (1 imm.), the Goodwills.

MARSH HAWK - Jan. 13, Martindale (1 female)
Jack Williams
ROUGH-LEGGED HAWK - Jan. 30, Hobb's School (1)
Tom Hueston.
GOLDEN EAGLE - Jan. 4 - 25, Martindale (1), Ro

GOLDEN EAGLE - Jan. 4 - 25, Martindale (1), Rob Mackenzie Grieve, Vancouver Birders, Elton Anderson, Ron Satterfield and Vic Goodwill.

PEREGRINE FALCON - Jan. 4-25, Martindale (1), Chauncey and Sarah Wood, Ron Satterfield and Vic Goodwill; Jan. 21, Clover Point (1) the Goodwills; Jan. 31, View Royal (1), the Woods.

MERLIN - Jan. 1, View Royal (1), the Woods; Jan. 1,

east of Jordan River (1 male, 1 female) the Goodwills; Jan. 19, Welch Rd. (1), Ron Satterfield; Jan. 28, Island View Beach (1), Jack Williams.

AMERICAN KESTREL - Jan. 10-24, north of Pendergast St. (1), the Goodwills; Jan. 15, Island View Beach (1), Jack Williams; Jan. 18, Victoria Airport (1), the Woods; Jan. 23, Wilson and John Rd. (1) Jack Williams; Jan. 25, Rithet's Bog (1), Ron Satterfield and Vic Goodwill.

BLACK-BELLIED PLOVER - Jan. 12, Oak Bay Golf Links (92), Enid Lemon and A.R. & E. Davidson.

SPOTTED SANDPIPER - Jan. 20, Duncan Ponds (1) the Goodwills.

WANDERING TATTLER - Jan. 26, Clover Point (1) Ken Walton.

GREATER YELLOWLEGS - Jan. 23, John Rd. (15) Jack Williams.

ROCK SANDPIPER - Jan. 18, Clover Point (9) the Woods
COMMON SNIPE - Jan. 1, Hasting's Flats (1) the Woods
WESTERN GULL - Jan. 19, Clover Point (1), the Woods
BLACK-LEGGED KITTIWAKE - Jan. 8, Clover Point (2)
the Woods

BONAPARTE'S GULL - Jan. 1, Ten Mile Point (500) the Woods

RHINOCEROUS AUKLET - Jan. 11, Clover Point (1)
Ron Satterfield and Vic Goodwill

MARBLED MURRELET - Jan. 11, Clover Point (1)

Ron Satterfield and Vic Goodwill

BAND-TAILED PIGEON - Jan. 26, Oak Bay (21)
Mr. Galbraith

MOURNING DOVE - Jan. 11, Marigold (1), Mrs.C.Sivell SCREECH OWL - Jan. 27, Foul Bay Rd. (1) John Schreiber and the Goodwills

HAIRY WOODPECKER - Jan. 26, Malahat (1 female) Ron Satterfield; Jan. 28, Sidney (1 male) Dorothy Williams.

SKYLARK - Jan. 25, Island View Road (15), the Vancouver Group MOCKINGBIRD - January, Colwood (1), Many observers HERMIT THRUSH - Jan. 15, Goldstream Park (1) the Goodwills CEDAR WAXWING - Jan. 1, Prevost Hill (15) Vic Goodwill NORTHERN SHRIKE - Jan. 1, Swan Lake (1), Vic Goodwill, Martindale (1), Rob Mackenzie Grieve; Jan. 20, Duncan (1), the Goodwills; Jan. 28, Island View Beach (1) Jack Williams YELLOW-RUMPED WARBLER - Jan. 18, Goldstream Rd. (1 ad. female), the Woods, Ron Satterfield and Vic Goodwill; Jan. 19, Robertson St. (1 male) Ron Satterfield. TOWNSEND'S WARBLER - Jan. 11-31, Brentwood (1) Gerry Gardner

WILSON'S WARBLER - Jan. 18, Goldstream Rd. (1) the Woods, Ron Satterfield and Vic Goodwill WESTERN MEADOWLARK - Jan. 4, Livesay Rd. (3), Vic Goodwill; Jan. 11 & 31, Cedar Hill Golf Course, 2 and 5 respectively, Tim Murphy and Tom Hueston HARRIS SPARROW - Jan. 4, Campion Rd. (1), Vic Goodwill and Ron Satterfield WHITE-THROATED SPARROW - Jan. 18, Goldstream Rd. (1), the Woods

LINCOLN'S SPARROW - Jan. 1 and 4, Hasting's Flats (1), the Woods, Ron Satterfield and Vic Goodwill; Jan. 20, N. Cowichan Ponds (1), the Goodwills LAPLAND LONGSPUR - Jan. 19, Clover Point (1), Ron Satterfield

Anna's Hummingbirds are still with us according to Betty Lothian and Rob Mackenzie Grieve. They're still visiting feeders in the Cadboro Bay-Arbutus Road area.

We seem to have some unusual warblers around for this time of year. There is a Wilson's at the Goodmanson's feeder on Goldstream Rd. and Gerry Gardner has had a Townsend's at his house in Brentwood for most of January. Gerry says the bird is partial to peanuts.

There was a Black-legged Kittiwake on the Christmas Bird Count, in fact some people thought there were 2 but later it was decided that they had probably seen the same bird twice. However Chauncey and Sarah Wood have opened the whole question again by seeing 2 at Clover Point. The Woods say they were 2 different birds because one of them was quite distinctive - it was bleeding from the neck.

Mr. Galbraith of Oak Bay says he had a hawk coming to his garden and a Pileated Woodpecker too. The woodpecker does not seem to be the least bit afraid of the hawk, in fact the two seem to play games together.

John Rimmington reports a Varied Thrush with a quite different coloration in his garden. Could this possibly be the subspecies known as the Northern Varied Thrush (Ixoreus naevius meruloides)?

Thanks to Mrs. Giles, who allowed us free access to her garden, most of the local bird watchers had a chance to see the Colwood Mockingbird.

Your compiler appreciates the support you are giving by 'phoning in your observations; we seem to have a lot more contributors of late. Keep up the good work, and now that spring is on its way (a little bird told me) maybe we can keep track of a lot of the rare migrants as they pass through.

Let's see who can get the first swallows and don't forget to watch for Yellow-rumped and Orange-crowned Warblers, and Ospreys as well.

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## BIRDING AT FORT RODD HILL AND ESQUIMALT LAGOON

BY Rita Dickson

After a particularly gloomy Friday, the 25 birders who turned out at Fort Rodd on Saturday, January 18, were pleasantly surprised by the clear,

mild day that greeted them.

As we drove in a Cooper's Hawk proved to be the forerunner of a good day. Moving towards the water we found Surf Scoters and Common Goldeneyes. Farther out 3 Red-throated Loons were sighted and admired. Then someone called out Oldsquaw!, which was duly observed through the 'scope. Harlequins and Pigeon Guillemots were there too. On the shore, camouflaged against the sand, 3 or 4 Black Turnstones were discovered. Then one of the group spotted a Bald Eagle keeping watch from a far away treetop.

Two Goldeneye males were trying to impress a female, making mad rushes at each other, accompanied by head-bowing. We abandoned her to her fate and continued out to the point beyond the lighthouse. Here we found grebes - 3 varieties - Red-necked, Horned and Western. On the far shore the brilliant orange bill of an Oystercatcher appeared as he climbed over a rock.

Heralding our arrival at Esquimalt Lagoon was a Kingfisher and a Great Blue Heron, which surveyed the group with apparent disapproval, although he remained watching us for some time. During the morning a total of 10 herons were seen flying against the background of evergreens that borders the far side of the lagoon.

On the rocks we saw a yellowlegs and some Black-bellied Plover, while in the water Buffleheads showed off their beautiful white crowns between dives. A large flock of scaup rode the water farther out and while we tried to decide which kind they were we were treated to a fine view of two cormorants on a large rock - a Doublecrested and a Pelagic - displaying the contrast between them.

Soon a Ring-necked Duck caused some excitement, then a Canvasback, and several Dunlin and Yellowlegs along the shore. Walking up the road we saw a huge flock of Western Grebes on the ocean side - stretching as far as we could see. Then someone sighted a Meadowlark, our first 'land' bird for the day.

We decided to make a special trip up the road to the home of Mrs. Giles, on Wickheim, where we saw the Mockingbird which has been visiting her for some time. On the way up the garden the walk was made more interesting by several small land birds - White-crowned and Golden-crowned Sparrows, a Winter Wren and a Bewick's Wren as well as a Song Sparrow. A Varied Thrush was seen as well, and a Towhee.

The Mockingbird kept us waiting in suspense for some time but at last there it was flying beyond the garden and alighting on a fence rail not 100 feet from us.

A flock of Pine Siskins and a Flicker rounded out the day and brought our total count to 57. Jack and Dorothy Williams made an excellent team to lead us and we all enjoyed the day immensely.

## C.N.F. CONFERENCE

Just so you don't forget, we're going to keep reminding you - June 12-16 are C.N.F. days when the V.N.H.S. will be hosting naturalists from all across Canada. Committees established to tackle the myriad of jobs associated with making the Conference go, have been working hard and their plans are beginning to take shape. BUT THEY'LL NEED YOUR HELP!

So from here on in we'll be posting little notes in The Naturalist keeping you in the picture and seeking your assistance. Following are a couple of announcements.

## ARE YOU A PHOTOGRAPHER?

The V.N.H.S. exhibit at the C.N.F. conference will include a continuous slide show and several albums of colour and black and white photos. Slides and pictures must be of natural history subjects pertinent to Vancouver Island. Members wishing to lend slides and prints for this display are asked to observe the following rules:

Slides - colour, 35 mm only, not more than 10 per person.

Prints - colour or black and white, 8" x 10" not more than 5 per person.

Please have your <u>name</u>, <u>title</u> and any other relevant information on <u>each</u> slide or print. Include your address and 'phone number with each submission. Deadline for submission is April 20. A jury of 3 will make the selections. Pictures not accepted will be returned promptly; those accepted will be returned after the conference. Every care will be taken in handling your material but all submissions are made at your risk.

Please mail material to:

Miss Pat Swift 606 - 350 Douglas St., Victoria

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## ARE YOU A DRIVER? A LEADER? A HELPER?

Katherine Sherman and her Field Trip Committee have worked out a busy schedule for people coming to the Conference but she's looking for volunteers who can drive, act as leaders or sub-leaders, or make themselves available in many other ways related to operating the Field Trip program. She'd particularly like to hear from geologists or marine biologists who could help interpret on field trips. If you're ready to offer your services in any of the above contact:

Katherine Sherman 598-3237

Marg Brehaut 478-7195

## KIDS COUNTRY

## ACROSS THIS LAND with Chris Walsh (part 5)

Chris and his family had reached Manitoba when we left him last month. We rejoin him today in Northwestern Ontario.

We stopped last night (June 30) in Dorion, Ontario, and there I saw a yellow-shafted flicker. There was no mistaking it -- I saw the yellow shafts clearly.

It is now the first of July. All morning I didn't see a thing but in the afternoon, hearing a noise in a tree, I looked up and saw a pair of Loggerhead Shrikes. This was at Skunk River. Later on, near Ottawa, we saw black squirrels and some animals that looked like marmots. They seemed to be everywhere. An Eastern Kingbird and a bronzed grackle showed up, too.

Just before we got to Ottawa, though, we visited the Northern Ontario Wildlife Park. It was closed, but Mr. Harman, the manager and owner, let me in anyway. He was feeding the animals when I arrived, and he allowed me to do his rounds with him. He told me how he had built up his zoo and his main difficulties in doing so. His main difficulty seems to be the price of animals. He told me he recently paid \$3,000. for a pair of Barred-rock Cariboo. He finds buying them more expensive than feeding them. He has paid for everything himself with no Government help, and has raised bears, moose and others. The moose is named Nellie and is completely tame.

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## ADULT PROGRAM

- Pelagic Trips members interested in such trips contact Jack Williams (656-1484)
- Wed. Mar. 19 General Meeting. 8:00 pm
  St. John's Ambulance Auditorium
  941 Pandora.
  Speaker: Rob Cannings
  Topic: Naikoon Park: Jewel of the
  Charlotte's.
- Sun. Mar. 23 Botany Mill Hill spring flowers morning only
  Meet: Mayfair Lanes 9:30 am or
  Atkins Ave. parking lot 10:00 am
  Leader: Stephen Mitchell (477-9248)
- Sun. Mar. 30 Ornithology Early passerine migrants.

  Meet: Elliot Bldg. parking lot
  U. Vic., 9:00 am
  Leader: Jeremy Tatum (477-1089)

## JUNIOR PROGRAM

- Sat. Mar. 8 Francis Park work bee to set up
  displays and check trails
  Drivers Parrish
   Askey
- Sat. Mar. 15 Mill Hill
  Drivers Marrion
   Farnden

Both outings 1:30 pm from Mayfair Lanes parking lot, Roderick and Oak. If drivers not available, contact Gail Mitchell as soon as possible at 477-1089.

## INTERMEDIATE PROGRAM

Sat. Mar. 15 - Metchosin Lagoon - Nature Ramble
For details contact Jennifer Fisher
(592-0024)

#### COORDINATORS

PROGRAMME:		
Stephen R. Mitchell	4321 Majestic Dr.	477-9248
LEADERS:		
Dr. J.B. Tatum	305 - 1680 Poplar Ave.	477-1089
THE VICTORIA NATURALIST:		
Harold Hosford	303 Daniel Pl.	478-5794
UNIVERSITY LIAISON:		
Dr. Alan P. Austin	4671 Spring Rd.	479-7889
FEDERATION OF B.C. NATURALISTS:		
David Stirling	3500 Salisbury Way	385-4223
AUDUBON FILMS:		
Miss Anne Adamson	1587 Clive Dr.	598-1623
JUNIOR NATURALISTS:		
Mrs. Gail Mitchell	4321 Majestic Dr.	477-9248
LIBRARIAN:		
A.R. Davidson	2144 Brighton Ave.	598-3088
FRIENDS OF THE MUS	EUM:	
Eric M. Counsell	1005 - 647 Michigan	386-3989
RESEARCH:		
Rick H. Harcombe	461 Sparton	479-4958

