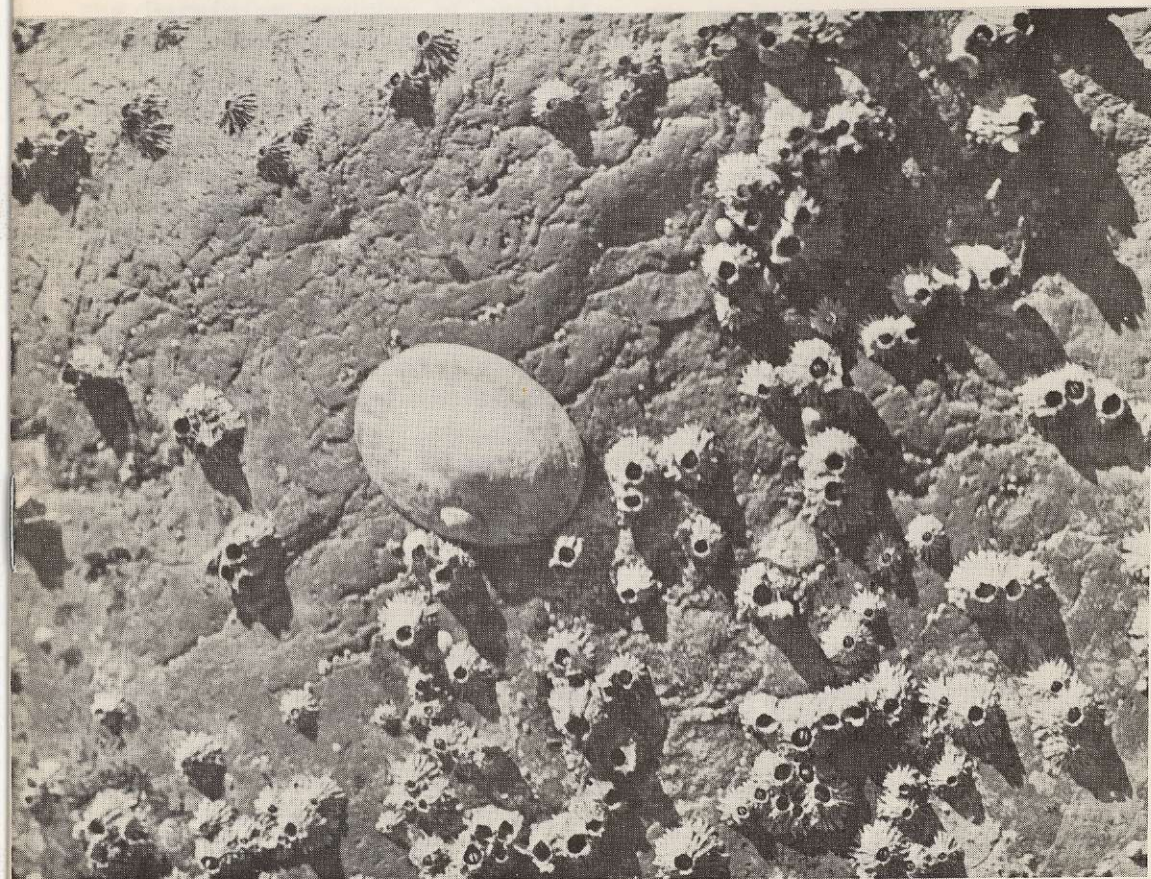


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Vol.26, No.4December 1969SURVIVAL

COVER PICTURE AND STORY

By G. Clifford Carl

The key phrases "struggle for existence" and "survival of the fittest" which express two of the basic ideas in the Darwinian concept of evolution are nowhere more dramatically portrayed than on the seashore. Here, living conditions are often so severe that only the most rugged and most adaptable individuals are able to become established.

Most often the drama occurs beneath the surface or at least out of sight of man, but in some cases evidences of the struggle are in the open for all to see. Such is the case on any rock surface exposed by a falling tide.

The rock's surface is usually worn smooth by countless years of wave action so that organisms using it as support must have a secure means of attachment. Barnacles solve the problem by cementing themselves directly to the rock but only those lucky enough to select a crack or roughened surface survive the first period of trial. There is some evidence that larval barnacles actively seek out settlement spots that afford the most protection, a crevice in the rock's surface or perhaps a spot beneath an overhang, but many of them choose an exposed surface and these are usually the first to be eliminated by wave action, by exposure to the sun, or by predators.

Chance therefore plays some part in survival. For example those barnacles that happen to settle just before a series of low tide periods in early summer are likely to be killed off by exposure to the sun before they can build up a resistant shell, whereas those settling at other periods have ample time to become well established before exposure. Hence, as the illustration shows, one may find at least two age groups of barnacles represented in any one area, one group of very small, recently settled

untested individuals in the cracks and other areas including exposed surfaces, and one group of more mature animals that have withstood the stresses thus far. In either group but especially in the former, casualties continue to occur through natural causes or accident so there is a constant turnover of individuals. As one drops off, is eaten or swept away, its place is quickly taken over by another one during the next period of settlement.

The situation is a little different with limpets because of the matter of food. Not only does the limpet need a suitable place for attachment during the period of exposure and a shell designed to withstand wave action, but it must also be in an area providing sufficient forage to sustain life as the limpet must move around in search of food. So the proximity of competitors plays a major role in determining survival of this particular group of rock inhabitants, a factor of relatively small consequence to barnacles which depend on water currents to bring in food.

But the population on any particular rock never becomes static. Since time of exposure, weather conditions, spawning periods and other factors are constantly changing, living conditions there also change, with consequent changes in the flora and fauna.

Such variation guarantees that only the most fit individuals will survive to perpetuate the species.

IN THE HEART OF SCOTLAND

In the heart of Scotland there is a town named Crieff. At night it lies like a jewelled scarf round the shoulders of the Knock, a 950 foot high hill with a long back, crowned at one end with an Indicator and at the other by a pine wood, then dropping to the valley through a young plantation of conifers.

The top half of the hill is steep, and kept in its wild state by the Town, although the Scottish Wildlife Trust now operate part of it, placing markers to point out plants of interest. Well-worn trails criss-cross under the huge old oaks and pines, and between bushes of wild roses, Guelder rose, broom, red elder and hawthorn. Silver birches shiver their green or gold leaves in the hill breezes, and are under-planted with carpets of the blue wild hyacinths that bloom in the spring.

In spring, too, the starflowers spangle the heathery slopes above treeline, the northern bedstraw sends up cushions of creamy white blossom. Primroses and violets colour the grassy banks where a broad path coils round and up to the Indicator. (Horses, but no cars are allowed on the Knock. There is a large carpark at the farm.)

Hawthorn berries, blackberries and elderberries attract many birds in the autumn. The red squirrel loves the pine cones. If one looks up where there are stripped cones lying beneath the trees, his cheeky face can often be seen, bright eyes watching.

Wildlife abounds in this sanctuary, with roe deer in the pine wood, and pheasants under the oaks. Four kinds of tits, siskins, redpolls and gold crests are found with the robins and wrens in the shrubbery, while families of bullfinches pipe in the top trees.

In winter, huge flocks of chaffinches and yellow-hammers flutter like leaves in a gale from the trees to the fields below, where the blackbirds also abound in hard weather. Partridges peck in the hard ground, and are often joined by some missel thrushes. Peewits, curlews and oystercatchers prove the meadows round the farm, and Greenland geese graze further away. (Mostly graylag here but occasionally some pinkfeet stray over from the east coast. The odd Snow goose in a flock causes great excitement among the birdwatchers.)

Fieldfares and redwings from Siberia are blown in from the east on the first storm in October, and arrive exhausted but chuckling gently. This is the first sound we listen for and then look for the geese to follow them.

The view from the Indicator looks right round the horizon, with the hills rising in tiers to north and west, and the wide shallow valley of the Earn Water, sheltered from the east winds by the Ochil Hills beyond Gleneagles hotel, running from east to south. Recognizable landmarks point out Arthur's Seat in Edinburgh, or the Lomond Hills in Angus, among many others.

Crieff is but one of the places that this description could fit anywhere in Perthshire, so I hope that you will make a visit to Central Scotland a "must" on your next trip Home.

E.M. Harvey (Mrs.)

CHESTNUT-BACKED CHICKADEES

Throughout the year, a good number of species and varieties of birds visit our garden, but the most constant, almost inhabitants of the garden, are the chestnut-backed chickadees. They are here at all seasons. In fall, winter and early spring, they use the feeder several times a day and in the summer they delight us with their antics around water sprinklers. They seem to favour a situation where a spray of water is within a few feet of a low tree or a shrub. Eight or ten will gather in the branches and dart into the water, two or three at a time, then return to the branches to preen and dry themselves.

More than once when I have been watering with a hose in open ground with no convenient bushes handy, a bird has landed on my cap, shoulder, or on the nozzle of the hose and then darted into the nearest puddle to join the other bathers. In mid-October this year I had a new experience. I was leaning over and pouring gasoline from one container into another when a chickadee, attracted I suppose by the gurgle of the liquid or by its appearance, dropped from a tree overhead onto my shoulder and immediately flitted down to within two inches of the stream of gasoline, and seemed to hover there for a moment. I shouted at him, and whether as a result of my warning or because of the gas fumes, he retreated fast.

I was glad he changed his mind, as I'm sure nature did not intend this type of "dry cleaning" for chickadees.

H.D. Wallis

SKYLARKS NEAR DUNCAN

The April, 1969, magazine article "Operation Skylark" brought the editors a letter from Mr. A. Muir, P.O. Box 460, Houston, B.C. Mr. Muir writes that on April 8, 1969, when he was visiting in Duncan, he first heard and then saw soaring skylarks in three locations. When he lived in Duncan from August, 1966, to March, 1968, he was aware of skylarks on the Cowichan Bay flats and recorded them there on most field trips.

Editors

AN INTERESTING OBSERVATION

On September 28, 1969, the San Francisco Examiner had an interesting article about observations made at Point Reyes Bird Observatory, "a private non-profit scientific enterprise at the southern tip of the Point Reyes National Seashore near Bolinas".

Using mist nets, the scientists are catching and banding, sometimes delousing, birds. Much of this data goes to the U.S. Fish and Wildlife Service in Washington, D.C.

The main concern is with two native birds, the white-crowned sparrow and Wilson's warbler. But this year they have been catching a number of birds far off their normal beat. The most surprising were the Philadelphia vireo and the Kentucky warbler, neither ever reported in California before. Other surprises were Parula warbler, American redstart, summer tanager and Prairie warbler.

Why so many surprising visitors?

The scientists' method of classification is - Class A, common birds; Class B, rare birds; Class C, very rare birds. They figure that Class B birds off course may be explained by storms and other weather conditions, or by variations in the migrating mechanism of individual birds. But a genetic theory is being developed as most of the Class C birds are young, hatched this spring, and may have been born without their "marvelous hereditary gift" and consequently lost their way. That, of course, produces speculation as to pesticide poisoning.

One season's rarities should not confirm a theory, but continued deviations should be of concern to all lovers and students of birds. Perhaps, too, more careful, modern methods are revealing birds that were formerly missed.

Reita Sparling

ABOUT BIRDS The September 19 Vancouver "Sun" had an article About Birds by John Rodgers. Accompanied by a photograph of evening grosbeaks, the article was a simple well written account of a birdwatching walk in Stanley Park early on a Sunday morning after a night of rain. It ended with details about a forthcoming Vancouver Natural History Society Bird Trip. Why can't we do this for Botany or Bird field trips in Victoria's environs?

THE YEAR OF THE BUTTERFLY

This season generally turned out to be very poor for butterflies and moths in several parts of British Columbia. I observed this in the Victoria region and in Manning Provincial Park where I worked as a naturalist this summer. One of the most common and prominent butterflies normally seen in the park is Mountain Swallowtail (Papilio zelicaon). The eggs and larvae are usually very common on members of the Carrot family, such as Angelica and cow parsnip. But this summer we found only a handful after hours of searching. Fewer species of moths turned up in the light trap than would be expected.

But in Britain the situation was reversed. The October 1 edition of the Daily Telegraph stated that lepidopterists "generally agree that 1969 has been an exceptional year for butterflies", with an increase in almost all species all over Britain. One expert felt that this was due to a warm summer following a cold winter. Apparently, butterflies are not tempted to come out too soon and so avoid the dangers of late frosts during a particularly hard winter. Second broods also occur during a warm summer.

In British Columbia, we had an extremely warm May, but wet and cold weather in the early summer may have been a factor in our shortage of scaly-winged insects. They might have been chopped off by the colder nights just as they were emerging in large numbers. Also, their populations will be influenced by the severity of the winter especially when low temperatures are coupled with poor snow protection.

Let's hope that next year will bring these winged beauties back in normal numbers again!

Andrew Harcombe

FUNGUS FORAY: This year's Fungus Foray was held on a fine November 8, after a night of heavy rain. More than fifty people attended. (At least three came from the Comox area) About eighty species were gathered. Miss Melburn's report will be in the January magazine.

JUNIOR JOTTINGS

The juniors began their excursions with a visit to our camp at Sylvan Acres off Land's End Road. Each leader took a group of juniors and showed them what project they were working on. The camp was a success with the amount of work accomplished and the enjoyment we all got out of it.

Next week the Seniors started their regular outings with a trip to Thetis Lake under the supervision of three senior leaders as "Skipper" was away. They made a revealing exploration for the number of edible plants growing around the lake.

At Prior Lake, the juniors observed many lichens and fungi. They also investigated the lake with a dragnet, and found much in the way of freshwater life.

The next Saturday, the Seniors explored the Dogwood Trail at Goldstream Park. Here much was learned about evolution and the formation of the land.

Saturday evening, November 1, the senior leaders went to a slide show at the home of Mr. and Mrs. J. Hughes who have lived in the North for many years. This most interesting show gave all a better outlook on the life of the Eskimos and their habitat.

Jane Moyer

WING-TAGGED GULLS

As part of an intensive study of the ecology of the glaucous-winged gull, 119 adult birds were marked by University of British Columbia ornithologists with wing tags this past summer at one of the breeding colonies in the Gulf Islands. The tags are circular pieces of bright red plastic attached to the right wing by an aluminum rivet. Each tag has a number, or number and letter combination printed in black so each bird can be recognized as an individual.

The object of marking these birds so conspicuously is to allow their movements to be traced throughout the year, especially with the view of finding out how important garbage dumps may be as feeding areas.

Even if you were unable to read the number, please report any sightings of these birds to John Ward, Department of Zoology, U.B.C., Vancouver 8. Progress reports will be prepared from time to time and sent to all co-operators.

R. Drent

MYSTERY RAVINE

Unknown to most residents of Victoria is a deep, wild ravine of strange origin with its disappearing stream, its hidden lake, a far gone bridge, an authentic mystic spring, and a barricade of wild underbrush and towering trees.

This ravine starts on the north side of Cedar Hill X Road, close by the future Haro Road extension and 1/4 mile east of Henderson Road. Originally a drainage ditch crossed the north side of the Uplands School grounds and then ran northwards past the riding stables to trickle into the head of the ravine. But the trickle of water now entering this ravine could never have cut the deep ravines in these late Pleistocene clays dating back no more than 5,000 - 10,000 years. In fact the stream lower down enters a picturesque pool and is dry from there on down for most of the year. Where the pool water goes to is another mystery, for no water appears again in the ravine until near the bottom end when a so-called "mystery spring" appears and another pool is formed, now stocked with trout.

How could such an intermittent trickle of water form such a giant ravine? Geologists are perplexed and hazard a guess that at the end of the last Ice Age a section of the melting glacier was trapped between the Mount Tolmie and Henderson Road area and the rush of water from the melting ice formed the ravines which are now forested. It could not have changed much in the past 50 - 100 years as there is a well-rotted ancient wooden "bridge" astride the stream but now buried in the undergrowth. Of course, a wetter climate in the past or a slightly altered drainage system might have made a difference in the erosion.

Hiking is difficult as there is no trail through the greater part. Concealed wires from old, decrepit fences lie across the path in places and form dangerous traps for the unwary. The ravine can be approached from the northern end at Killarney Avenue but this approach is hazardous and protected by high stinging nettles that meet overhead. Upstream a dam seems to have been made at one time but it is so overgrown that it may be a fallen log of which many impede the way in varying degrees of decay.

John L. Rimmington
(To be concluded at a later date.)

OUTDOOR SCIENCE SCHOOL

Society member, Mr. H.D. Walker, sent the magazine an article from the October 10 "Sun".

It tells how some eleven- and twelve-year olds in the West Vancouver School District are being taught natural history at a special outdoor science school.

They see the grim facts of pollution for themselves. Using scientific equipment, they have collected water samples from Port Mellon where there is a pulp mill and from Roberts Creek which faces the ocean.

This experiment in a natural history program began in mid-September, is scheduled to last eleven weeks, and is directed by Edwin W. Jackson, formerly a West Vancouver teacher. The Pauline Johnson Elementary School is involved. So is teacher Sheila Kitson who is also chairman of the Sechelt School Board.

Away from the waterfront, other lessons concern forestry and farming. About seven hundred children, it is estimated, will pass through the school during the course.

This interesting experiment in education is being closely watched.

A DELEGATE'S REPORT

The October 18 - 19 meeting of the Federation of B.C. Naturalists was held at the Apex Lodge near Penticton. It was hosted by the South Okanagan Club and presided over by Mr. Hugh Monahan.

The Victoria Society's motion urging stronger controls on snowmobiles and other wheeled vehicles operating in snow was endorsed. The motion to stop drilling for oil in the Strait of Georgia was passed and fully endorsed. The banning of DDT and other dangerous pesticides was endorsed. These resolutions were to be forwarded to the appropriate authorities.

David Stirling reported on the depletion of certain species. The Federation felt that, where possible, local clubs should deal with local matters as they arose, and should increase their memberships as much as possible.

More information was requested on the setting up of conservation areas. Dr. Tom Taylor spoke on setting aside areas of ecological value.

My thanks to Mr. Stirling for supplying my transportation.
Freeman King

BIRDS FOR THE RECORD

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

Snow goose (1 adult, 2 imm.) - Esquimalt L. - Oct.18 -
Enid Lemon
European widgeon (1) - Esquimalt L. - Oct.19 -
Jerry and Nancy Strickling and Ralph Fryer
Harris's sparrow (1) - Alpine Crescent - Oct.23-25 -
Gordon and Gwennie Hooper and Ralph Fryer
White-throated sparrow (1) - Penrhyn St. - Oct.24-28 -
Rob and Flo Mackenzie Grieve
Slate-colored Junco (1) - Alpine Cr. - Oct.26, Nov.6-7 -
Gordon and Gwennie Hooper
Swainson's hawk (1) - Belleville Street - Oct.27 -
Ralph Fryer and David Stirling
Western meadowlark (3) - Cattle Point - Oct.28 -
Tuesday Group

(Possibly scarce enough to merit inclusion in this column. Sight records welcomed.)

Lewis's woodpecker (1) - Vic High - Oct.30 -
(1) - Rutland Road -
(1) - East end of Lansdowne -

Ralph Fryer

(All seen within an hour; probably three birds.)

Goshawk (1) - Penrhyn Street - Nov. 2 -
Rob Mackenzie-Grieve
Black brant (1) - Esquimalt L. - Nov. 8 -
J.M. Barnett
(1 imm.) - Foot of Lansdowne - Nov. 8 -

Red phalarope (2) - Shoal Bay -
White-fronted goose (2) - Blenkinsop Lake -
A.R. and Eleanore Davidson

Pine grosbeak (1) - Ten Mile Point - Nov. 9 -
Rob Mackenzie-Grieve

Winter residents

Ruddy duck (8) - Resthaven (ARD) - Oct.25
Pigeon hawk (1) - Alpine Crescent (GH) - Oct.26
Northern shrike (4) - Saanich (JT) - Nov. 1
(Many sightings of pigeon hawks and shrikes this fall)
Rock sandpiper (12) - Clover Point (ARD) - Oct.28
Common goldeneye (5) - Uplands to Saanich (ARD) - Nov. 1
Red-throated loon (1) - Foot of Lansdowne (ARD) - Nov. 8

Mr. and Mrs. Jerry Strickling of St.Louis, Missouri, spent a brief holiday birdwatching in Victoria. They have very long life lists but the European widgeon at Esquimalt Lagoon on October was a 'first' for both of them. Jerry Strickling went home with a life list increased to 600 species; his wife had 597.

THE EDITOR'S DESK

A SEA OTTER REPORT On the afternoon of November 14, Mr. Bud Pauls, Department of Recreation and Conservation, phoned to say that the Fish and Wildlife Branch had just received a reliable report of a probable sea otter sighting at Race Rocks. The report sent in by lighthouse keeper Mr. Trevor Anderson, left little doubt that the animal was a sea otter rather than the smaller river otter that often venture out to sea. The sighting was on November 8.

Mr. Pauls (local 2484) would like to hear details from any Society member who sights a sea otter. Past numbers of the magazine contain descriptions of sea otters.

SPAWNING SALMON: At Goldstream Provincial Park, the morning of November 12 was misty-moisty, mild. By 10:30 a.m. the car parking area was three-quarters full. Spectators were mostly on the bridge and along the western bank of the stream. In age, they ranged from about eighteen months to eighty-five years. Freeman King was addressing a group of elementary school children. A student-type of university age was watching a tagged salmon with a white disk on one side and red on the other. A chunky water-ouzel with short, stubby tail was dipping up and down on a rock in the stream. The spectators as a whole seemed quiet, proud and interested in their natural resource.

MAGAZINE COMMENT: Like other publications, the magazine has been faced by rising postage and production costs. To combat these costs, Volume 26 has been produced on lighter paper, and except for the February (Bird Count) number, all issues in Volume 26 will be 12, not 16, pages. This policy, your executive agreed, was preferable to raising membership fees or reducing the number of issues per volume.

CHRISTMAS WISH: As December dawns and the winter solstice nears, may we wish all members the kind of holiday season they most enjoy.

PROGRAM FOR DECEMBER 1969

Executive Meeting 8:00 p.m. at home of Mrs.S.Prior,
 Tuesday December 2 1903 Shotbolt Road.
General Meeting Douglas Building Cafeteria 8 p.m.
 A program by David Hancock:
 Tuesday December 9 "From San Miguel to Triangle"
Heritage Court Presents: 8:00 p.m. Newcombe Auditorium
 "West Coast Wildlife" by
 Friday December 12 Wayne Campbell
Christmas Bird Count Information will be mailed to
 all participants. Anyone who has
 Saturday December 20 not already indicated his wish
 to participate, please telephone
 Jeremy Tatum at 592-1332
 (evenings)

There will be no Bird Field Trip in December.

Junior Group Meet every Saturday 1:30 p.m. at
 Douglas and Hillside for field
 trip.
 Leader: Freeman King 479-2966

THE SALMON RUN

The Parks Branch of the Department of Recreation and Conservation has a four-page leaflet, headed Goldstream Provincial Park and giving details about the salmon run. With text by J.E. Underhill and Freeman King, drawings by Ray Beckett, this leaflet will be useful in families and for all school biology teachers. The first three pages concern coho and chum salmon, their spawning colours and spawning habits. The fourth page tells how spectators should treat salmon. "Don't throw stones at the fish, poke them with sticks or chase them in the shallows because salmon can be easily frightened. Fright may make them flee the spawning pools and so disturb them that they are unable to spawn successfully".

This leaflet is truly education for conservation. A slow process but better than too many unenforceable laws.

Editor.

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Dues and changes of address should be sent to the Treasurer.