PROVINCE OF BRITISH COLUMBIA
DEPARTMENT OF RECREATION AND CONSERVATION

# PROVINCIAL MUSEUM
## of NATURAL HISTORY
## and ANTHROPOLOGY

---

REPORT FOR THE YEAR 1966

Printed by A. SUTTON, Printer to the Queen's Most Excellent Majesty
in right of the Province of British Columbia.
1967

*To Major-General the Honourable* GEORGE RANDOLPH PEARKES,
V.C., P.C., C.B., D.S.O., M.C., C.D.,
*Lieutenant-Governor of the Province of British Columbia.*

MAY IT PLEASE YOUR HONOUR:

The undersigned respectfully submits herewith the Annual Report of the Provincial Museum of Natural History and Anthropology for the year 1966.

W. K. KIERNAN,
*Minister of Recreation and Conservation.*

*Office of the Minister of Recreation and Conservation,*
*January 27, 1967.*

PROVINCIAL MUSEUM OF NATURAL HISTORY AND ANTHROPOLOGY,
VICTORIA, B.C., January, 1967.

*The Honourable W. K. Kiernan,*
*Minister of Recreation and Conservation, Victoria, B.C.*

SIR,—The undersigned respectfully submits herewith a report covering the activities of the Provincial Museum of Natural History and Anthropology for the calendar year 1966.

I have the honour to be,
Sir,
Your obedient servant,

G. CLIFFORD CARL,
*Director.*

# DEPARTMENT OF RECREATION AND CONSERVATION

The Honourable WILLIAM KENNETH KIERNAN, *Minister.*

D. B. TURNER, PH.D., *Deputy Minister.*

## PROVINCIAL MUSEUM OF NATURAL HISTORY AND ANTHROPOLOGY

### STAFF

G. CLIFFORD CARL, PH.D., *Director.*

CHARLES J. GUIGUET, M.A., *Curator of Birds and Mammals.*

ADAM F. SZCZAWINSKI, PH.D., *Curator of Botany.*

DONALD N. ABBOTT, B.A., *Curator of Anthropology.*

ERIK THORN, *Chief of Displays.*

FRANK L. BEEBE, *Illustrator and Museum Technician.*

GEORGE H. E. MOORE, *Museum Adviser* (from October 1st).

PHILIP R. WARD, *Conservator* (from November 14th).

ROBERT H. NICHOLS, *Field Agent.*

JOHN H. SMYLY, *Technician.*

PETER L. MACNAIR, B.A., *Assistant in Anthropology.*

MICHAEL D. MILLER, *Assistant in Museum Technique.*

THOMAS L. PUTNAM, *Display Technician* (from August 8th).

EDGAR M. MULLETT, SHOPMAN (from June 20th).

MARGARET CRUMMY, B.A., *Clerk-Stenographer.*

BETTY C. NEWTON, *Assistant in Museum Technique.*

SHEILA Y. NEWNHAM, *Herbarium Technician.*

HELEN M. BURKHOLDER, *Clerk.*

CLAUDE G. BRIGGS, *Attendant.*

GORDON KING, *Relief Attendant.*

NORMAN W. MILKE, *Relief Attendant.*

R. L. PUMFREY, *Relief Attendant.*

BEVERLY SAWCHUK, *Student Assistant.*

LINDA GUSTHART, *Student Assistant.*

A. S. HARRISON, *Student Assistant.*

JOHN H. W. SENDEY, *Student Assistant.*

### TOTEM-POLE RESTORATION PROGRAMME

HENRY HUNT, *Chief Carver.*

E. C. (TONY) HUNT, *Assistant Carver.*

SIMON CHARLIE, *Assistant Carver* (from September 6th).

# PROVINCIAL MUSEUM OF NATURAL HISTORY AND ANTHROPOLOGY

## Objects

(*a*) To secure and preserve specimens illustrating the natural history of the Province.

(*b*) To collect anthropological material relating to the aboriginal races of the Province.

(*c*) To obtain information respecting the natural sciences, relating particularly to the natural history of the Province, and to increase and diffuse knowledge regarding the same.

(Section 4, *Provincial Museum Act,* Chapter 311, R.S.B.C. 1960.)

## Admission

The Provincial Museum is open to the public, free, on week-days, 8.30 a.m. to 5 p.m.; Saturdays, 9.30 a.m. to 5 p.m.; and on Sunday afternoons, 1 to 5 p.m. July and August: week-days, 8.30 a.m. to 9 p.m.; Saturdays, 9.30 a.m. to 9 p.m.; Sundays, 1 to 5 p.m.

## CONTENTS


| | PAGE |
|---|---|
| Report of the Director | 11 |
| Field Work | 11 |
| Curatorial Activities | 12 |
| Thunderbird Park | 12 |
| Extension | 12 |
| New Building Construction | 13 |
| Display Preparation | 13 |
| Research | 14 |
| Out-of-Province Travel | 14 |
| Publications | 14 |
| Staff Changes | 15 |
| Attendance | 16 |
| Obituaries | 16 |
| Donations and Accessions | 17 |
| Article—" Preliminary Distributional List of the Spiders of British Columbia," by Erik Thorn | 23 |

Coastal diorama in preparation under the direction of Mr. F. L. Beebe, Museum technician.

H.R.H. the Queen Mother at ceremonies during the laying of the cornerstone of the Museum-Archives complex, March 16, 1966. With her are the Honourable W. N. Chant, Minister of Public Works; the Honourable W. A. C. Bennett, Premier; and Lieutenant-Governor the Honourable George R. Pearkes.

# REPORT OF THE PROVINCIAL MUSEUM

## For the Year 1966

## REPORT OF THE DIRECTOR

The year 1966 has been highlighted by many events marking the Centennial of the union of the Crown Colonies of Vancouver Island and British Columbia. It has also been a memorable one for the Museum, marked by periods of progress and optimism alternating with times of delay and frustration, mostly in connection with the building construction now underway. These events, coupled with the more or less routine activities connected with the operation of a museum, have resulted in a busy year.

### FIELD WORK

Most work in the field in 1966 was concerned with gathering material required for exhibits planned or in preparation for the new building. Besides a number of local trips for birds and plants needed for displays, two sessions were spent in the Okanagan Valley, where study was concentrated on the locale selected for a diorama being prepared to show the life of the Dry Interior. The work consisted of making a cast of rock formations, gathering plant material, collecting birds and mammals, and taking photographs and tape recordings. Assisting Museum staff members were Mr. Karl Spreitz, of the Photographic Branch; Mrs. Grace M. Bell, of Victoria (making sound recordings); and Miss Enid Lemon, also of Victoria (photography).

In the early fall, Mr. C. J. Guiguet, Curator of Zoology; Mr. M. D. Miller, assistant in museum technique; and Mr. John Hermann-Blome, taxidermist, spent several days on Vancouver Island collecting a bull and two cow elk. These animals are to be mounted for display in a coastal forest habitat group planned for completion in 1969.

As part of a three-year botanical project, student-assistant Spring Harrison carried on an intensive programme of plant-collecting in Saanich Peninsula under the direction of Dr. A. F. Szczawinski, Curator of Botany. As the vegetative covering of this part of British Columbia is changing so rapidly, we feel it imperative to have a botanical inventory made at this time for future reference.

In early June Mr. Frank Beebe, illustrator and museum technician, spent several days with Fish and Wildlife Branch personnel in the Queen Charlotte Islands assessing the current population of peregrine falcons in that area, particularly in the vicinity of Langara Island.

In the human-history field, a number of trips were made to various parts of the Province to collect historic items and Indian artifacts. Areas visited included the East Kootenay District, and then Lillooet, Lytton, Shuswap, Fort Rupert, and Port Hardy.

In June Mr. D. M. Abbott, Curator of Anthropology, and Mr. P. L. Macnair, assistant in anthropology, attended the elaborate celebrations put on by the Kwakiutl people in connection with the official opening of a new dance house constructed at Alert Bay. Mr. Henry Hunt and Mr. Tony Hunt, carvers, took part in some of the ceremonies. On several occasions during the winter months Mr. Abbott and Mr. Macnair attended spirit dances and other ceremonies put on by local natives.

During the spring term, Museum staff members assisted a team of university students to carry out a " dig " at Cadboro Bay. The site proved most productive; a series of artifacts and stratigraphy showing successive cultural phases was revealed by the co-operative study. The materials gathered will eventually be added to the collections of the Provincial Museum.

## CURATORIAL ACTIVITIES

In addition to the usual routine activities connected with the care of collections, the identification of submitted specimens, and dealing with the public in general, other chores were thrust upon some staff members as a result of several moves.

Early in the year it was necessary to shift our display studio and workshop from the old Mc and Mc Building, 1450 Government, where we settled in mid-1965, to other quarters provided for us at 845 Yates Street in Victoria. The new building provides a greater amount of floor space with the additional advantage of being completely within our control as far as access is concerned. Its central location with some inside parking is also a valuable asset. The move caused some delay in our programme of display planning and construction, and interfered with the work of restoring totem poles and other large carvings.

Later still, more work and storage space was unexpectedly made available to us on the top floor of the former warehouse of the British Columbia Liquor Control Board at Wharf and Fort Streets. This area is now being used as a sorting centre for the extensive anthropological collection, a place where objects can be safely laid out for inspection, cleaning, and eventual selection for display.

A minor move involved the taxidermy shop and an archæological office at 609 Superior Street; switching locations improved working conditions in each area and enabled the Curator of Archæology to organize his collections to better advantage.

## THUNDERBIRD PARK

Carving of a replica of a 40-foot Haida pole, Weeping Woman of Tanu, which was commenced in 1965, was not completed until midsummer because of a number of other commitments. Work on this pole was also slowed while Mr. Tony Hunt spent several weeks repairing a number of canoes and totems being readied for display.

In late summer a contract was received to carve a 60-foot pole and a " welcome figure " for the Indians of Canada Pavilion in Expo 67 in Montreal. Logs for this purpose were generously donated by MacMillan Bloedel Limited and by British Columbia Forest Products, and a third carver, Mr. Simon Charlie, of Duncan, was engaged to assist in the project.

A number of poles which were temporarily stored at Thunderbird Park were moved to the Yates Street quarters for cleaning and repairs.

## EXTENSION

As usual, various staff members presented illustrated lectures, took part in radio and television programmes, gave technical instruction, and were active in other types of educational activities as the opportunities arose. In February the Director presented a series of illustrated conservation lectures in California and Arizona under the combined auspices of the Canadian Audubon Society and the National Audubon Society.

A major step in providing extension services to other museums was taken with the appointment of a Museum Adviser to our staff. In this capacity, Mr. George

Moore has already compiled an up-to-date list of all museums of the Province and has contacted each institution by letter, by phone, or by personal call. Plans to provide various types of helpful services are being formulated.

As part of a conference held in British Columbia by members of the Canadian Botanical Association, Dr. Szczawinski conducted a group of confreres on field trips to several areas on Vancouver Island to study and photograph vegetation cover typical of this coast. Dr. Szczawinski is also a member of the advisory board of the association.

On another occasion Dr. Szczawinski acted as guide and interpreter for a Polish team of television men making publicity films of British Columbia for world-wide use.

From time to time during the year the Museum has received publicity through a series of spot announcements from radio station CFAX as a free public service; we express here our gratitude for this generous contribution.

## NEW BUILDING CONSTRUCTION

The erection of steel for the new buildings proceeded through the early months of the year and was completed well on schedule. The formal laying of the foundation-stone, located at the south entrance to the main building, took place on March 19th with Her Majesty the Queen Mother taking the leading part. The ceremony was witnessed by several hundred invited guests plus the general public. Despite poor weather, a large crowd had gathered. The affair was well covered by television, radio, and other news services.

For most of the ensuing months, construction slowed almost to a standstill while the Department of Public Works architects and engineers revised plans in order to reduce the total cost of the project. Following approval of the proposed changes, work progressed on the retaining-walls, underground passageways, and other sub-surface structures while revised plans concerning the exterior of the curatorial tower and other details were being completed.

The contract for the final phase of construction of the main building was let to Farmer Construction Limited, of Victoria, in early December and work commenced almost immediately.

## DISPLAY PREPARATION

A great deal of time and effort was spent on planning exhibits and on constructing some of them. This has involved drawing up an over-all floor plan for displays in both the Natural History Section and the Human History Section and in determining which sections are to be completed first.

Four large dioramas had already been selected for completion in the first phase of exhibit preparation, and work on these habitat groups progressed favourably. The artists engaged to produce these dioramas—namely, Mr. Frank Beebe, of the Museum staff; Mr. Clarence Tillenius, of Winnipeg, Man.; and Mr. Hugh Monahan, of North Vancouver—have individually completed miniature replicas of each project, and details as to composition have all been worked out. Mr. John Hermann-Blome, who is undertaking to prepare the mounted specimens to be used in the dioramas, has completed a cougar, two deer, and several smaller mammals; three bighorn sheep, a moose, and three elk are in various stages of preparation.

To make best use of exhibit space to be provided in the new building, a series of special display-cases has been designed by Mr. E. Thorn, Display Chief, and pilot cases of three different sizes have been constructed. With these as models, a number of displays have been produced, ready to be installed in cases as soon as they are

manufactured. The first group of exhibits in this category is destined for a gallery to be devoted to life in the Dry Belt of British Columbia, which will include a large diorama featuring the bighorn sheep already mentioned.

An introductory gallery has also been planned to contain displays related to the geological history of the Province and some of its physical features. A considerable amount of help in this project is being given by the Department of Mines and Petroleum Resources, for which we are most grateful, and other authorities have been consulted when required.

A variety of accessories for these displays have also been produced. These include numerous mounts of birds and small mammals, casts and models of various reptiles and amphibians, Indian houses in miniature, and several groups of plants, tree trunks, wild flowers, and miscellaneous bits of vegetation.

Early in the year the display programme was interrupted for some days during a move to more spacious quarters, as already noted. For a short period, also, the services of the staff were devoted to installing exhibits in the replica of S.S. " Beaver," constructed as part of British Columbia's Centennial celebration programme.

## RESEARCH

Intensive collecting of display material precluded further work during 1966 in the study of small-mammal distribution. Various field activities also made inroads on time devoted to botanical research, but in spite of this, some progress was made on the study of the flora of the Province being made by Dr. Szczawinski in collaboration with Dr. T. M. C. Taylor, of the Department of Botany, University of British Columbia.

Archæological research was also carried on, but to a rather limited extent, during the year.

## OUT-OF-PROVINCE TRAVEL

In May, Mr. Macnair was accepted as a candidate to attend a training session at Winnipeg sponsored by the Canadian Museums Association. Such attendance provides credits toward a diploma of competence in museology to be granted to successful candidates by the association.

Later the Director attended the annual meeting of the Canadian Museums Association, which was held in Winnipeg following the training period.

In June Mr. Thorn attended the annual meeting of the American Museums Association in Chicago, where he conferred with officials in the exhibit field and with technicians in the local museums. En route home he visited the Milwaukee Museum to study its latest display methods.

## PUBLICATIONS

The following publications have appeared in 1966:—

G. Clifford Carl.

Guide to Marine Life of British Columbia. British Columbia Provincial Museum Handbook No. 21, pp. 1–135 (reissue).

George Austin Hardy, 1888–1966. Victoria Naturalist, Vol. 22, No. 9, pp. 102–103.

George Austin Hardy. Journal of the Entomological Society of British Columbia, Vol. 63, December, pp. 43–44.

C. J. Guiguet.

Let's Collect a Specimen for Exhibit. Victoria Naturalist, Vol. 23, No. 4, pp. 44–47.

A. F. Szczawinski.
The Case of the Poisoning Mushroom. Wildlife Review, Vol. 3, No. 10, pp. 12–13.
A World of Mushrooms. Beautiful British Columbia, Vol. 8, No. 2, pp. 26–29.
Weeds for Lunch. Wildlife Review, Vol. IV, No. 1, pp. 14–15.
Food for Survival. Wildlife Review, Vol. IV, No. 2, pp. 18–19.
T. M. C. Taylor.
The Lily Family (Liliaceæ) of British Columbia. British Columbia Provincial Museum Handbook No. 25, pp. 1–109.
Thetis Park Nature Sanctuary Association.
Natural History of Thetis Lake Area near Victoria, British Columbia. Report of the Provincial Museum for 1965, pp. 21–54.
Erik Thorn.
Designing Exhibits for Small Museums. Museum Round-up, No. 24, October, pp. 42–43.

Two publications in addition to the above have been edited and submitted for publication early in 1967. These are "Intertidal Univales of British Columbia," by Lela M. Griffith, and "Mosquitoes of British Columbia," by L. C. Curtis. Other manuscripts in the fields of biology and anthropology are in preparation.

Handbooks No. 2, "Amphibians of British Columbia," and No. 21, "Guide to Marine Life," were reprinted in response to a continuing demand.

## STAFF CHANGES

Two significant appointments to our permanent staff were made in 1966. In September Mr. George Moore was engaged as Museum Adviser, a post which will provide a number of services to the museums of British Columbia. Some of these are enumerated in another section of this Report.

Later in the year Mr. Philip R. Ward, formerly of the British Museum, joined out staff as Conservator. Mr. Ward's responsibilities will include the cleaning, repairing, restoring, and preserving of museum material already in collections, as well as of objects as they are acquired.

Mr. Ed Mullett and Mr. Tom Putnam have been engaged as technicians in the display laboratory, and Mrs. Beverly Sawchuk, Mr. John Sendey, Miss Linda Gusthart, and Mr. Spring Harrison were taken on for varying periods as student assistants. In September Mr. Simon Charlie joined the carving staff at Thunderbird Park, as noted elsewhere.

From time to time, as required, Mr. Gordon King, Mr. R. Pumfrey, and Mr. N. W. Milke acted as relief attendants.

One staff member retired on December 31st. After more than 20 years' service as a technical assistant, Miss Betty C. Newton left for reasons of health. During her long tenure Miss Newton carried out many different assignments, not only in the technical and artistic field, but also as instructor, docent, and general office worker as required. Special projects included the construction of certain plant and insect models presently on display, the colour scheme in the bird gallery, illustrations for "The Heather Family (Ericaceæ) of British Columbia" (Handbook No. 19), and the arrangement of several displays in the invertebrate division. For some time also Miss Newton was in charge of a group of junior naturalists who used to meet in the Museum under the auspices of the Victoria Natural History Society. Fellow staff members join in wishing her well.

## ATTENDANCE

The following attendance figures for 1966 are estimates based upon sample counts made at irregular intervals:—

| | | | |
|---|---|---|---|
| January | 4,100 | August | 62,000 |
| February | 11,000 | September | 30,000 |
| March | 7,900 | October | 10,700 |
| April | 8,500 | November | 7,100 |
| May | 10,000 | December | 2,000 |
| June | 16,000 | | |
| July | 43,300 | Total | 212,600 |

Of the total attendance, 10,610 persons were members of groups made up as follows:—

| | | | |
|---|---|---|---|
| Kindergartens | 14 | Bands or sports | 8 |
| School classes | 108 | Education for Democracy | 7 |
| Summer play groups | 8 | Others | 47 |
| Guides or Scouts | 65 | | |
| Birthday parties | 11 | Total | 281 |
| Church | 13 | | |

According to these figures, the number of visitors in 1966 shows an increase of 22 per cent over the attendance for the previous year, a gratifying rise.

As has been the policy for several years, the Museum's hours were extended to 9 p.m. each evening except Sunday during the summer months. Many visitors took advantage of this extra service, especially when flag-raising ceremonies or other events took place on the grounds in front of the Legislative Buildings.

## OBITUARIES

We pay tribute here to several persons who have passed on during 1966.

Mrs. Ellen Neel, renowned artist and totem-carver. (February 3rd.)

Dr. Peter Kelly, a Haida from Skidegate, prominent in Canadian Indian affairs and active in the ministry; receiver of the Coronation Medal in 1954. (March 2nd.)

Mr. George A. Hardy, former botanist and entomologist of the Museum staff and a well-loved all-round naturalist. (March 27th.)

Mr. Theo H. Scheffer, a former member of the old United States Biological Survey (now the Fish and Wildlife Service), author of many scientific papers in natural history, aged 99. (May 17th.)

Major Anthony (Tony) P. McLaughlin, British Columbia land surveyor and volunteer plant collector for the Provincial Museum. (May 23rd.)

Dr. George J. Spencer, entomologist, professor emeritus at the University of British Columbia, and inspirer of students in biology. (July 24th.)

Mr. Thomas R. Ashlee, amateur botanist and active plant collector. (September 11th.)

Dr. John Hocking, of Kelowna, vice-president of the British Columbia Nature Council and ardent conservationist. (October 16th.)

Mr. Ted Greig, of Royston, outstanding grower of rhododendrons and an enthusiastic plant collector. (December 1st.)

# DONATIONS AND ACCESSIONS

## BOTANICAL

A number of plant collections were received from various institutions, game biologists, foresters, and private individuals. Of these, two of the most significant were by Mrs. G. Mendel, whose collection represents the Kitimat district, and Mr. A. C. Heringa, representing the Chilcotin district. Space does not permit us to list each contributor individually, but we include all in a grateful vote of thanks.

Herbarium exchange was continued with the following institutions: National Museum of Canada, Ottawa; Science Service, Department of Agriculture, Ottawa; Laval University, Quebec; Smithsonian Institute, Washington, D.C.; University of British Columbia, Vancouver; University of Washington, Seattle, Wash.; University of Victoria, Victoria; Stockholm Museum, Stockholm, Sweden; University of Helsinki, Finland; University of Krakow, Poland; and others.

With the addition of 1,508 sheets of specimens during 1966, the total now stands at 48,200. The project of remounting and uniformly labelling all herbarium specimens, started in 1965, was continued through 1966.

During the year a number of plant scientists from Canada and abroad visited and worked in the herbarium.

## ZOOLOGICAL

### MAMMALS

By gift—

C. Clark, Department of Highways, Port Clements — one large whalebone fragment.
D. J. French, Victoria—one long-eared bat.
Mrs. Henderson, Black Creek—one Vancouver Island water shrew.
Mrs. D. Hillis, Victoria—portion of ear bone of whale.
C. Hronek and D. Hamber, Victoria—bone fragments and skulls of deer and bear from caves in Gordon River area.
Tom Jamieson, Victoria—rib bone of large whale.
Mrs. Johnson, Sidney—one red squirrel.
Michael Leoppky, Victoria—immature hair seal.
Michael Lowery, Victoria—one big brown bat.
K. S. McDiarmid, Victoria—one house mouse.
Marvin Moore, Youbou—skin and skull of wolf-dog hybrid.
C. W. Morehen, Victoria—two raccoons.
Dave Murdock, Public Works, Victoria—tooth of domestic cow.
Robert D. Parker, Victoria—skull of blacktail deer.
Ken Quagliotti, Victoria—fragment of elk mandible.
Archie Sanderson, Victoria—bone, blacktail deer.
S.P.C.A., Victoria—one river otter.
Sooke Game Department—one river otter, one mink.

By staff—73.

### BIRDS

By gift—

Capt. Francesco Adessi, Vancouver—one snowy owl.
Mrs. Joan Alston-Stewart, Victoria—one western bluebird.
Wendy Basham, Victoria—one white-crowned sparrow.
Mr. Bremridge, Victoria—one golden-crowned kinglet.

Mrs. Bridgeman, care of A. R. Davidson, Victoria—one immature cedar waxwing.
R. P. Brown, Port Hardy—one snowy owl.
Kurt F. K. Cehak, Race Rocks Lightstation—one snowy owl.
Miss Cowe and Miss Davis, Victoria—one robin's nest, three eggs.
A Crawley, Victoria—one warbling vireo nest, two cowbird eggs.
J. S. Cunningham, Victoria—one yellow warbler.
Mrs. Beth Damgaard, Victoria—one pheasant.
Mrs. Eleanore Davidson, Victoria—one purple finch, one flicker, one crow, one saw-whet owl.
A. R. Davidson, Victoria—one rufous hummingbird.
Brian Davies, Victoria—one immature towhee.
Galiano Rod and Gun Club—one whistling swan.
Mark Guiguet, Victoria—one snowy owl.
Barbara Isherwood, Victoria—one chipping sparrow's nest.
Mrs. Johnson, Sidney—one flicker.
Patrick Kerfoot, Victoria—one European starling.
Mrs. J. C. Lapham, Victoria—two loon skins.
Enid Lemon, Victoria—one junco.
Dorothy E. MacDonald, Vancouver—one sharp-shinned hawk.
R. Mayo, Prince George—two yellow-bellied sapsuckers, one varied thrush.
Hugh Monahan, North Vancouver—two mallards, four widgeons, four shovellers, one scaup, one pintail, one wood duck, four green-winged teal.
Mrs. P. Monckton, Victoria—one varied thrush.
C. W. Morehen, Victoria—one wood duck.
Don Owen and Anthony Lowe, Victoria—one saw-whet owl.
Jack Rhodes, Victoria—one Audubon warbler.
Vicky Sargent, Victoria—one golden-crowned kinglet.
Sylvia Sidwell for South Park School, Victoria — one immature European starling.
Miss M. Skellern, Victoria—one Cooper hawk.
Mrs. M. Slocomb, Victoria—one varied thrush.
S.P.C.A., Victoria—one immature albino crow, one snowy owl, one great blue heron, one cormorant.
Sooke Game Department—two Arctic loons, one cormorant, one fox sparrow, one rosy finch.
G. Taylor, Campell River—one trumpeter swan.
Robert B. Taylor, Victoria—one murre.
J. D. Walker, Prospect Lake—one owl.
Miss D. White, Victoria—one quail's egg.

By staff—328.

### Amphibians and Reptiles

By gift—
Mrs. F. S. Henderson, Comox—one western painted turtle.
Mark Love, Wenatchee—one skink.
Mrs. Isabel Wagner, Victoria—one garter snake.

By staff—9.

### Fish

By gift—
James Hawkey, Victoria—one sculpin.
Larry Lesperance, Victoria—one prickleback.
Brian Watson, Victoria—one mackereljack.

### INVERTEBRATES

By gift—

Richard Barclay, Victoria—one polyphemus moth.
Mrs. D. Beatty, Victoria—one horntail.
G. Bell, Victoria—one white-lined hawk moth.
Mrs. L. Boxrud, Victoria—larva of caddis fly.
Miss Joyce Chope, Victoria—shell of fresh-water snail.
Mrs. D. Eng, Victoria—one ground spider.
Mrs. A. E. Evans, Victoria—one crab, empty egg cases of dog whelk on Japanese oyster shells.
Jim Flett, Victoria—one electric-light bug.
Heather Guille, Victoria—one shamrock orb weaver.
Paul Gurr, Victoria—one polyphemus moth.
Miss E. C. Harrold, Roberts Creek—one adult dobson fly.
Mrs. Hetherington, Victoria—one ground spider.
Mrs. K. Holt, Victoria—one bristletail.
L. Hubbard, Victoria—one shamrock orb weaver.
Danny Hudson, Nanaimo—one electric-light bug.
Calvin Hunt, Victoria—one spiny wood-borer.
Jack Kemp, Victoria—one eyed click beetle.
Mrs. Lettiki, Victoria—one wolf spider.
S. R. Mudie, Victoria—drugstore beetles.
M. Padget, Victoria—purple-hinged rock scallop.
E. Perry, Victoria—one ground spider.
R. D. Pilling, Victoria—one banded borer.
Richard Razzo, Victoria—one horse hair " snake."
Nick Richardson, Alberni—one banded borer.
Dan and Tom Ryan, Victoria—one black widow spider.
Helen Saunders, Sooke—one orb weaver.
G. W. Sidders, Galiano Island—cluster of large barnacles.
Ken Sinkiewicz, Victoria—one moth.
Elizabeth Stanley, Victoria—portion of hinge of butter clam shell.
A. Todd, Victoria—eyed hawk moth.
Miss T. Todd, Victoria—five egg masses of electric-light bug.
R. H. Vye, Victoria—shellfish found at bottom of ocean.
Ron Wilson, Victoria—one striped cockchafer.

### PALÆONTOLOGY

By gift—

George Massey, Victoria—one mammoth tooth.
Thomas G. Polson, Victoria—partial jaw of prehistoric elephant.
A. D. Porter, Queen Charlotte—collection of whalebone fragments.
Cliff Williams, Ladysmith—one fossil fragment.

## HISTORICAL

*The McGill and Orme Collection*—(Gift.) One large lot of druggist's stock and miscellaneous material.

By purchase—

Numerous unclassified lots of pioneer articles and other objects of historic interest.

By gift—

D. L. Carl, Victoria—one tube of belt dressing.
Miss M. Crummy, Victoria—one old top hat with case.
Mrs. E. M. Dougan, Victoria—two antique clocks.
W. O. Douglas, Victoria—one Hudson's Bay Company trade article, collection of 15 back numbers of " Beaver " magazine.
Mrs. E. F. Fletcher, Victoria—one copy of " Museum of Antiquity," by Yaggy & Howes, 1884; one damaged copy of classical Greek dictionary, two silver hat pins, one pair of very old drapes.
Dr. J. F. L. Hart, Victoria—one physician's bag formerly property of Dr. E. C. Hart, for many years coroner of Victoria, B.C.
Miss Marion C. Heritage, Victoria—one box of lace, quilt, wedding skirt.
Miss Olive Heritage, Victoria—one small chest, writing-box.
Tony Karop, Victoria—World War I match box and matches.
J. F. G. Kemp, Victoria—one sleeping-bag of sheepskin or buffalo.
Mrs. Isabel Lemon, Victoria—wool work, framed by Sommers of Victoria, made about 1890.
W. P. Shaw, Victoria—one Hudson's Bay Company type all-iron walking-plough.
Bob Turner, Victoria—one sterilizer for instruments.
Mrs. Ethel Watkin, Victoria—travellers' bathtub, stone hot-water bottle.
P. E. Wilkinson, Victoria—buffalo-skin overcoat.
Miss J. Wilson, Victoria—one wooden collection box, one piece of doll-house furniture, inlaid.
Miss Violet Wilson, Victoria—one iron door knocker.

## Archæology

By gift—

J. V. Belknap, Victoria—large collection of artifacts from Lytton.
L. D. Brown, Lillooet—two basalt scrapers, six chipped points.
M. Bolduc, Victoria—partial human skeleton.
G. Boudreau, Victoria—partial human skeleton.
Miss J. Christie, Sidney—stone chisel fragment.
R. Cox, Victoria—stone object.
William Cox, Gabriola Island—collection of artifacts.
Mrs. W. H. Cross, Sidney—bone point, celt fragment, polished bone object, fragment of soapstone artifact.
D. J. De Rochie, Victoria—chipped point.
Frederich Dyer, Victoria—two skull fragments.
David Gardner, Victoria—stone hammer.
Mrs. Nancy Hayden, Victoria—collection of artifacts.
W. Noel Hayden, Victoria—collection of artifacts.
M. Hodges, Victoria—partial human skeleton.
Miss Frances Hubbard, Victoria—iron harpoon blade.
Bill Huish, Sooke—prehistoric stone club.
H. Jones, Sooke—collection of artifacts.
W. D. Kinsey, Victoria—three celts.
Rodney Kresier, Victoria—partial human skeleton, trade beads.
Mrs. O. M. Landsvik, Hernando Island—collection of artifacts.
W. McCarter, Victoria—human skull, glass bottle.
Michael Miller, Saanich—collection of artifacts.
D. H. Mitchell, Victoria—human skull fragments.
Russel Porter, Victoria—stone fish-hook shank.

Harry Romaniuk, Victoria—collection of artifacts.
Royal Canadian Mounted Police, Kamloops—partial human skeleton.
Royal Canadian Mounted Police, Port Alice—human skeletons.
Bill Ruttan, Victoria—stone hammer.
Mrs. B. E. D. Sawchuk, Victoria—collection of artifacts.
John Sendey, Victoria—collection of artifacts.
Jerry Shewchuck, Victoria—partial human skeleton, trade beads.
G. Sidders, Galiano Island—three stone anchors.
Mrs. E. Skrondal, Victoria—two stone bowls.
Neil Smith, Abbotsford—quartz crystal microblade, basketry fragments.
Mrs. G. B. H. Stevens, Port Washington—partial human skeleton.
Marriott Stillwell, Jr., Victoria—adze blade.
Evert van Adrichem, Brentwood Bay—partial human skeletons.
Jim Wallace, Ashcroft—human skull fragments.
O. N. Wells, Sardis—two human skulls.
Gordon Wright, Victoria—chert scraper fragment.

By the staff—
Collections from the Victoria, Clinton, Cache Creek, and Armstrong areas.

## ETHNOLOGY

*The Alan W. Ford Collection.*—(Gift.) Athapaskan baskets and spoons from Bulkley River area. Alan W. Ford, Victoria.

*The W. D. Kinsey Collection.*—(Gift.) An important collection of Kwakiutl ceremonial material from Quatsino Sound. W. D. Kinsey, Victoria.

By gift—
Mrs. L. C. Darbyshire, North Vancouver—Aleut basket.
Miss Olive Heritage, Victoria—three unspecified baskets.
Mrs. Helen Hunt, Victoria—lampshade painted by Mungo Martin, bundle of cedar bark.
Harvey Kyllonen, Tacoma, Wash.—model Nootka canoe.
Miss J. Agnes McDonald, Vancouver—four Salish baskets.
R. H. Nichols, Victoria—Thompson salmon spear points.
F. L. Wille, Victoria—Songhees clam basket.
Mrs. A. G. Wilson, Victoria—Plains Indian catlinite pipe.

By purchase—
A. H. Jones, Sooke—Coast Salish bird rattle, D-adze.
P. Knox, Fort Rupert—silver bracelet, eagle design.
Miss J. A. McDonald, Vancouver—Chilcotin burden basket, Salish cradle basket.
J. J. Timmiss, Victoria—argillite pole carved by Tom Hans.

Staff purchases (miscellaneous sources)—
Two iron trade kettles.
Three Nootka baskets.
One Nootka horn rattle.
One Nootka hawk headpiece.
Three Nootka wolf masks.
Two Tsimshian eagle-down bags.
Collection of Chinese trade buttons.
Collection of Kootenay material.
Collection of Shuswap material.

## MISCELLANEOUS

By exchange—

Mrs. Grace M. Bell, Victoria—one reel of tape containing duplicate recordings of 11 bird songs plus frog chorus from original recorded in Okanagan area.

By gift—

Kim Beith, Victoria—one piece of slag.

G. L. Doman, Lone Butte—piece of volcanic ash.

Prof. C. W. Lowe, Victoria—seven pamphlets on wild rice and other foods for waterfowl.

George V. Wilkinson, Victoria—set of eight original slides showing life history of the honeybee.

Proceeds from the Museum donation box during 1966, amounting to $161.45, were turned over to the Mungo Martin Scholarship Fund.

# PRELIMINARY DISTRIBUTIONAL LIST OF THE SPIDERS OF BRITISH COLUMBIA

By Erik Thorn, Provincial Museum, Victoria, B.C.

This list includes all available records of spiders from within the boundaries of British Columbia up to the end of 1966. Specimens from this Museum's own small collection (B.C.P.M. in the list which follows) have been very kindly identified by Dr. Willis Gertsch, of the American Museum of Natural History (det. W.G.); by my late friend Mr. Takasuma B. Kurata, of the Royal Ontario Museum (det. T.B.K.); and by Dr. R. V. Chamberlin, of the University of Utah (det. R.V.C.). We are also indebted to many persons who have presented specimens to us over the years, supplementing staff collections, but particularly I wish to acknowledge the quite large collection made by the late Mr. S. L. Neave, Kyuquot, which came to us in 1959. A number of remaining collections have been sorted over the past year, and it is hoped that these may be submitted before long to experts.

However, many of the following records are compiled from existing published sources. It is most interesting to compare the present list (212 species) with studies made in Alaska (Chamberlin, 1947, records 247 species), in Washington (Worley, 1932; Exline, 1938; and others record about 190 species), and in Idaho and Montana (Gertsch and Jellison, 1939; Levi and Levi, 1955; and others record at least 125 species). Smaller lists from Banff and Jasper, Alberta (by Emerton 1920), and from Waterton (included in Levi and Levi, 1955) round out the eastern periphery. Of all these, over 30 species are known from both Alaska and from beyond our southern and eastern border which have not yet been recorded in British Columbia.

No significant collections have been described from the Northern Interior of this Province, nor from adjoining areas of Yukon, Mackenzie, or Alberta. The family *Micryphantidæ,* which generally represents 20 to 30 per cent of Canadian or Alaskan collections, is little studied in British Columbia (only 13 species so far recorded here out of over 100 *Micryphantidæ* for the entire Pacific Northwest spider fauna of all families, which is about 525 species). On the other hand, thanks to recent intensive studies our list of *Thomisidæ, Agelenidæ, Lycosidæ, Salticidæ,* and *Araneidæ* may well be fairly complete.

## ANTRODIÆTIDÆ

*Antrodiætes pacificus* (Simon).

Victoria (B.C.P.M., det. R.V.C.), Kyuquot (B.C.P.M., det. W.G.), Triangle Island (B.C.P.M., det. T.B.K.), Departure Bay (Emerton 1920).

*Antrodiætes ?hageni* Chamberlin.

Vaseux Lake (B.C.P.M., tentative det. E.T.).

## DYSDERIDÆ

*Dysdera crocota* (C. Koch) 1839.

Victoria (B.C.P.M., det. E.T.).

*Segestria pacifica* Banks.

Kyuquot (B.C.P.M., det. W.G.); Departure Bay, Spences Bridge (Emerton 1920).

## LEPTONETIDÆ

*Usofila pacifica.*

Kyuquot (B.C.P.M., det. W.G.).

## THERIDIIDÆ

*Theridion agrifoliæ* Levi.
Tofino, Wellington (Levi 1957a).

*Theridion aurantium* Emerton.
Victoria (Emerton 1920).

*Theridion californicum* Banks.
Savary Island, Vancouver (Emerton 1920); Tofino, Welington, Sidney (Levi 1957a).

*Theridion differens* Emerton.
Masset (Emerton 1920); Salmon Arm, Kaslo, Elko, Wellington (Levi 1957a).

*Theridion frondeum* Hentz.
Salmon Arm (Levi 1957a).

*Theridion leechi* Gertsch & Archer 1942, Am. Mus., Nov., 1171, pp. 8–9, p. 15, Figs. 19, 20 (male only).
Salmon Arm (type locality, Gertsch & Archer 1942); Kaslo, Ainsworth (Levi 1957a).

*Theridion melanurum* (Hahn).
Kyuquot (B.C.P.M., det. W.G.); Wellington, map shows vicinity of Victoria (Levi 1957a).

*Theridion montanum* Emerton.
Kettle River at Vernon–Needles Road, Monashee Mountains (Levi 1957a).

*Theridion murarium* Emerton.
Masset (Emerton 1920); Kaslo, Wellington (Levi 1957a).

*Theridion neomexicanum* Banks.
Victoria (as *T. placens* Keyserling—synonym—Emerton 1920); Kaslo, Powder Creek, Snow Mountain, Cascade, Wellington (Levi 1957a).

*Theridion ohlerti* Thorell.
Field, Vancouver (Levi 1957a).

*Theridion petrense* Sorensen.
" Yoho 5,670 ft. under stones and talus above Ross Lake " (Levi 1957a).

*Theridion saanichum* Chamberlin & Ivie 1947, Bull. U. Utah, Vol. 37, No. 10, Biol. Ser., Vol. 10, No. 3, pp. 29–30, Fig. 16 (female only).
West side of Saanich Inlet (type locality) and Sidney (Chamberlin & Ivie 1947; Alert Bay and Wellington (Levi 1957a).

*Theridion sexpunctatum* Emerton.
Kyuquot (B.C.P.M., det. W.G.); Vancouver (Emerton 1920); Yoho, Field, Terrace, Prince Rupert, Vancouver, Alert Bay, Forbidden Plateau (4,000′), Nanoose, Parksville, Cameron Lake, Tofino, Wellington, Sidney (Levi 1957a).

*Theridion simile* C. L. Koch.
Vancouver (Levi 1957a).

*Theridion (Achæaranea) rupicola* Emerton.
Victoria (Emerton 1920).

*Theridion (Achæaranea) tepidariorum* C. L. Koch.
Vancouver (Emerton 1920).

*Enoplognatha marmorata* Hentz.
Departure Bay (Emerton 1920).

*Enoplognatha ovata* (Clerck).
Kyuquot (B.C.P.M., det. W.G.); Wellington, Victoria, Salmon Arm (Levi 1957a).

*Crustulina sticta* (O. P. Cambridge).

Departure Bay, Vanderhoof, Wellington (Levi 1957); Departure Bay (as *C. borealis* Banks—synonym—Emerton 1920).

*Euryopis limbata* (Walckenær).

" Rocky Mountains, lat. 49 to 52, J. B. Tyrrell, 1888 " (as *E. funebris* Hentz—synonym—Emerton 1920).

*Dipœna tibialis* Banks.

Kaslo, Vancouver, Victoria (Emerton 1920).

*Dipœna nigra* (Emerton).

Map shows vicinity of Victoria, Vancouver, Kootenay Lake (Levi 1963).

*Steatoda (Teutana) grossa* (C. L. Koch).

Victoria (in lit. W.G. det., other specimens in B.C.P.M., det. E.T.). Frequent all-black specimens here are readily mistaken for black widows.

*Steatoda americana* (Emerton).

Map shows vicinity of Victoria (Levi 1957).

*Steatoda albomaculata* (de Geer).

Cascade, Mount Arrowsmith (Levi 1957); Departure Bay (as *Lithyphantes corrolatus* Linnæus, Emerton 1920).

*Steatoda hespera* Chamberlin & Ivie.

Salmon Arm, Vernon (Levi 1957).

*Steatoda borealis*

Balfour (Emerton 1920).

*Latrodectus* Walckenær) (Black Widow).

Correspondence during 1964 with Mr. Colin Curtis, research officer with the Canada Department of Agriculture station at Kamloops, and with Dr. Willis Gertsch, of the American Museum of Natural History, shows the possibility that two forms of black widow may occur in British Columbia. *Latrodectus curacaviensis* Levi 1957, not Muller 1776, in northern United States is now regarded as a synonym of the earlier *L. mactans* (Fabricius). However, current work by McCrone and others suggests that a second form known as *variolus* Walckenær may be present, the adult female of which is distinguished in part by two discreet triangles of orange under the abdomen in place of the complete orange hourglass typical of *mactans*. Following is a list of localities represented in our collection with the disposition of spots on all adult or near-adult females:—

Victoria:

8 adults—all black.
2 adults—a minute spot of orange.
7 adults—a small rectangle of orange.
2 immatures—a small rectangle of orange.
1 adult—a medium-sized triangle of orange.

Goldstream: 1 adult—a small rectangle of orange.

Malahat: 1 immature—all black.

Crofton: 1 adult—a medium-sized triangle of orange.

Nanaimo:

1 adult—all black.
3 adults—a small rectangle of orange.
2 immatures—a small rectangle of orange.

Powell River: 1 adult—a small rectangle of orange.

Vaseux Lake:

1 adult—a small triangle and an isolated small spot.
1 adult—a full hourglass pattern.

Other records of black widows in the province are Oliver, Coldstream, Trail (Raht 1935); Kamloops, Cascade, Vernon, Vancouver, Wellington, Summerland, " Gulf Islands," Douglas Lake Ranch near Nicola, and Lillooet (Spencer 1961).

## LINYPHIIDÆ

*Linyphia digna* Keyserling.

Victoria, Kyuquot, and Union Island (B.C.P.M., det. W.G.); Vancouver (as " *L. diana,*" Emerton 1920).

*Linyphia litigiosa* Keyserling.

Departure Bay (Emerton 1920).

*Helophora reducta* Keyserling.

Masset, Metlakatla (as *Linyphia r.* Keyserling—synonym—Worley 1932).

*Frontinella pyramitela* (Walckenær).

Creston (as *Linyphia communis* Hentz—synonym—Emerton 1920).

*Pityohyphantes costatus* (Hentz).

Kyuquot (B.C.P.M., det. W.G.); Vancouver, Nelson (as *L. phrygiana* C. L. Koch in Emerton 1920—typically a European form but possibly a prior synonym of the American *costatus*).

*Pityohyphantes subarctica* Chamberlin & Ivie.

Manning Park (B.C.P.M., det. T.B.K.); see *L. phrygiana* under *P. costatus* (above).

*Pityohyphantes vancouveranus* Chamberlin & Ivie 1942, Bull. U. Utah, Vol. 32, No. 13, Biol. Ser. 7, No. 1, p. 59, Fig. 146 (male only).

Cameron Lake (type locality, Chamberlin & Ivie 1942).

*Pimoa altioculata* (Keyserling).

Kyuquot (B.C.P.M., det. W.G.); Metlakatla, Departure Bay (as *Labulla a.* Keyserling — synonym — Emerton 1920); Nanaimo, Sidney, Port Alberni (Chamberlin & Ivie 1943).

*Bathyphantes keenii* (Emerton), *Diplostyla keenii* Emerton 1917, Canad. Ent., Vol. 49, p. 267, Fig. 19 (1, 2, 7).

Metlakatla (type locality, Emerton 1917), Kyuquot (B.C.P.M., det W.G.).

*Bathyphantes brevipes* (Emerton), *Diplostyla brevipes* Emerton 1917, Canad. Ent., Vol. 49, p. 267, Fig. 19 (3, 4, 8).

Metlakatla (type locality, Emerton 1917).

*Bathyphantes alboventris* (Banks).

Vancouver (Emerton 1920).

*Bathyphantes magnificus* Chamberlin & Ivie 1942, Bull. U. Utah, Vol. 33, No. 10, Biol. Ser. 7, No. 6, p. 23, Pl. 5, Fig. 44 (female only).

Cameron Lake (type locality, Chamberlin & Ivie 1942).

*Arcuphantes arcuatus* (Keyserling).

Parksville (Chamberlin & Ivie 1943).

*Microneta pallida* Emerton 1917, Canad. Ent., Vol. 49, pp. 265–266, Fig. 17 (1, 2).

Departure Bay (type locality, Emerton 1917).

*Microneta orcina* Emerton 1917, Canad. Ent., Vol. 49, p. 266, Fig. 18 (1, 2, 3) (male only).

Inverness (type locality, Emerton 1917).

*Lepthyphantes arboreus* (Emerton).

" Yoho Valley up to 7,000 ft. on spruce trees " (Emerton 1920).

*Lephyphantes fructuosa* Keyserling.

Vancouver (type locality of synonym): *Bathyphantes occidentalis* Emerton 1915, Trans-Conn. Acad. Sci., Vol. 20, p. 151 (*vide* Zorsch 1937).

*Linyphantes victoria* Chamberlin & Ivie 1942, Bull. U. Utah, Vol. 32, No. 13, Biol. Ser. 7, No. 1, pp. 50–51, Figs. 122, 123.
Victoria (type locality Chamberlin & Ivie 1942).

*Linyphantes pualla* Chamberlin & Ivie.
Sidney (Chamberlin & Ivie 1942).

## MICRYPHANTIDÆ

*Montileira ksenia* Crosby & Bishop.
Kyuquot (B.C.P.M., det. W.G.).

*Catabrithorax perplexus* (Keyserling).
" British Columbia " (Worley 1932).

*Spirembolus vasingtonus* Chamberlin.
Kyuquot (B.C.P.M., det. W.G.).

*Microlinyphia dana* Chamberlin & Ivie.
Kyuquot (B.C.P.M., det. W.G.).

*Lophocarenum rotundum* Emerton 1925, Canad. Ent., Vol. 57, p. 67, Fig. 3a, b.
Terrace (type locality, Emerton 1925).

*Lophocarenum erectum* Emerton.
" Yoho Valley, B.C., moss in woods near Tackakaw Falls " (Emerton 1920).

*Pelecopsis sculptum* (Emerton) as *Lophocarenum sculptum* Emerton 1917, Canad. Ent., Vol. 49, pp. 261–262, Fig. 12 (1–6).
Metlakatla (type locality, Emerton 1917).

*Aræoncus patellatus* Emerton 1917, Canad. Ent., Vol. 49, p. 262, Fig. 13 (1–3).
Metlakatla (type locality, Emerton 1917).

*Ceraticelus atriceps* (O. P. Cambridge).
Field (Emerton 1920).

*Ceratinopsis entypa* Chamberlin.
Parksville, Sidney (Chamberlin 1948).

*Lophomma columbia* Chamberlin 1948, Ann. Ent. Soc. Am., Vol. 41, pp. 533–534 and p. 502, Figs. 71–76 (male and female).
West side Saanich Inlet (type locality) and Cameron Lake (Chamberlin 1948).

*Tachygyna sima* Chamberlin 1948, Ann. Ent. Soc. Am., Vol. 41, p. 521 and p. 549, Figs. 137–8 (female only).
Sidney (type locality, Chamberlin 1948).

*Zornella cultrigera* (L. Koch).
" Vancouver Island " (as *Gongylidium armatus* (Banks)—synonym—Emerton 1920).

## TETRAGNATHIDÆ

*Tetragnatha seneca* Seeley.
Manning Park (B.C.P.M., det. T.B.K.).

*Tetragnatha laboriosa* Hentz.
Manning Park and Triangle Island (B.C.P.M., det. T.B.K.), Kyuquot (B.C.P.M., det. W.G.).

*Tetragnatha versicolor* Walckenær.
Kyuquot and Union Island (B.C.P.M., det. W.G.).

## ARANEIDÆ—ORB WEAVERS

*Aranea solitaria* (Emerton).

Kyuquot (B.C.P.M., det. W.G.); Salmon Arm (Archer 1951); Hope, Victoria (as *A. angulatus* Clerck but probably the above species, B.C.P.M., det. R.V.C.), Glacier, Vancouver, and Creston (as *Epeira angulatus* Clerck but "including *E. nigra* Em. 1894, *E. silvatica* and *E. solitaria* Em. 1884," Emerton 1920). (NOTE.—according to Archer 1951, *A. angulata* (of Emerton 1909) was a valid new species of western North America and was described by Archer as *A. andrewsi.* He disagreed with Kaston 1948 and others, and regarded *silvatica, nigra,* and *solitaria* each as valid species. Chamberlin 1947 regards *silvatica* valid for Alaska.)

*Aranea nordmanni* (Thorell).

Kyuquot (B.C.P.M., det. W.G.), Wellington (Worley 1932).

*Aranea aculeata* (Emerton).

Victoria (Worley 1932).

*Aranea diadema* (Clerck).

Common on Vancouver Island and other parts of British Columbia (Worley 1932); Manning Park (B.C.P.M., det. T.B.K.).

*"Aranea carbonaria* L. Koch."

Victoria (B.C.P.M., det. R.V.C.); these are old determinations, which should perhaps refer to another species such as *A. veræ* Chamberlin & Ivie (1942). True European *carbonaria* is said to be an alpine species unlikely to be introduced.

*Araneus gemmoides* Chamberlin & Ivie.

Kyuquot (B.C.P.M., det. W.G.); "British Columbia" (Chamberlin & Ivie 1935).

*Araneus gemmus* (McCook), possibly as used here a synonym of *gemmoides.*

Tranquille (B.C.P.M., det. R.V.C.); Victoria (B.C.P.M., det. R.V.C.); Balfour, Departure Bay (Emerton 1920).

*Epeira patagiata* (Clerck).

Manning Park (as *Aranea dumetorum* Villers — synonym — B.C.P.M., det. T.B.K.); Kyuquot (as *A. dumetorum,* B.C.P.M., det. W.G.); Victoria (Worley 1932); Victoria (B.C.P.M., det. R.V.C.); Vancouver, Metlakatla (Emerton 1920).

*Epeira marmorea* (Clerck).

Manning Park (as *Araneus raji* Scopuli—synonym—B.C.P.M., det. T.B.K.); Creston, Vancouver (Emerton 1920).

*Epeira sericata* (Clerck).

Okanagan Landing (Emerton 1920).

*Epeira trifolium* Hentz.

Saanich; Victoria (as *Araneus trifolium* (Hentz)—synonym—B.C.P.M., det. R.V.C.); Kyuquot (B.C.P.M., det. T.B.K.); Victoria (Emerton 1920).

*Argiope trifasciata* (Forskal).

Victoria (B.C.P.M., det. G. Hardy). This species has also been photographed at Osoyoos by Mr. A. E. Underhill, of Victoria.

*Araniella displicata* (Hentz).

Manning Park (as *Araneus d.* (Hentz), B.C.P.M., det. T.B.K.), Vancouver (as *Epeira d.* (Hentz) Emerton 1920).

*Meta curtisi* (McCook).

Kyuquot (B.C.P.M., det. W.G.), Departure Bay (Emerton 1920).

*Zygiella dispar* (Kulczynski).
Kyuquot (as *Z. montana* (C. L. Koch), B.C.P.M., det. W.G.); Kyuquot, Terrace, Ocean Falls, Wellington, Mount Benson (Gertsch 1964).

*Zygiella x-notata* (Clerck).
Victoria (B.C.P.M., det. W.G.); Metlakatla (as *Z. californica* (Banks) considered a synonym (Worley 1932)); Vancouver, Wellington (Gertsch 1964); Vancouver (Emerton 1920).

*Zygiella nearctica* Gertsch.
Metlakatla (Gertsch 1964, but this is shown as *Z. dispar* on map on page 5).

*Zygiella atrica* (C. L. Koch).
Vancouver (Gertsch 1964).

*Cyclosa conica* Pallas.
Creston, Vancouver (Emerton 1920).

## AGELENIDÆ

*Tegenaria larva* Simon.
Kyuquot (B.C.P.M., det. W.G.).

*Tegenaria gigantea* Chamberlin & Ivie 1935, Bull. U. Utah 26 (2), Biol. Ser. II (1), p. 31, Pl. XIII, Fig. 106 (male only).
" Vancouver Island, M. Kermode 1929 " (type locality) and Sidney (allotype and paratypes) (Chamberlin & Ivie 1935), Nanaimo (Exline 1938), Victoria (B.C.P.M., det. R.V.C.).

*Tegenaria domestica* Clerck.
Kyuquot (B.C.P.M., det. W.G.), Victoria (B.C.P.M., det. T.B.K.), Departure Bay (Emerton 1920).

*Ethobuella cinctipes* (Banks).
Kyuquot (B.C.P.M., det. W.G.).

*Agelena oregonensis* Chamberlin & Ivie.
West side of Saanich Inlet (Chamberlin 1941).

*Agelena actuosa* Gertsch & Ivie.
Goldstream (B.C.P.M., det. R.V.C.); west side of Saanich Inlet, Sidney (Chamberlin 1941).

*Cybæota vancouverana* Chamberlin & Ivie 1937, Ann. Ent. Soc. Am., pp. 228–229, Pl. 11, Figs. 81–82.
Sidney (type locality, Chamberlin & Ivie 1937), Kyuquot (B.C.P.M., det. W.G.).

*Blabomma grandis* Chamberlin & Ivie.
" British Columbia " (Exline 1938).

*Cybæus reticulatus* Simon.
Kyuquot (B.C.P.M., det. W.G.).

*Cybæus morosus* Simon.
Kyuquot (B.C.P.M., det. W.G.); Departure Bay, Illocet (Emerton 1920); specimens from " British Columbia " compared with material identified by Simon (Chamberlin & Ivie 1932).

*Cybæus signifer* Simon.
Victoria, Kyuquot (B.C.P.M., det. W.G.); Victoria (B.C.P.M., det. R.V.C.).

*Cybæina minuta* Banks.
Victoria and Kyuquot (B.C.P.M., det. W.G.).

*Cicurina simplex* Simon.
Departure Bay (Emerton 1920); Cameron Lake, Sidney, probably north to 55°, west of 112° (Chamberlin & Ivie 1940).

*Cicurina tersa* Simon.
Campbell River (Exline 1936), Departure Bay (Emerton 1920).

*Cicurina idahoana* R. V. Chamberlin.
"British Columbia, (collection of) American Museum of Natural History" (Exline 1936); north to 50°, west of 100°, British Columbia at 49° x 123° (Chamberlin & Ivie 1940).

*Cryphœca montana* Emerton.
Field (Emerton 1920).

*Calymmaria emertoni* (Simon).
Departure Bay (as *Tegenaria californica* Banks, Emerton 1920); "probably north to British Columbia west of the Cascades" (Chamberlin & Ivie 1937).

## PISAURIDÆ

*Melocosa fumosa* (Emerton).
Paradise mine, 9,000′ elevation (as *Lycosa f.* Emerton—synonym—B.C.P.M., det. T.B.K.).

*Dolomedes tenebrosus* Hertz.
Kyuquot (B.C.P.M., det. W.G.).

## LYCOSIDÆ

*Lycosa helluo* Walckenær.
Kyuquot (B.C.P.M., det. W.G.).

*Trochosa pratensis* (Emerton).
Comox, Metlakatla (as *Lycosa pratensis* Emerton (Gertsch 1934)).

*Pirata piratica* (Olivier).
Kyuquot (B.C.P.M., det. W.G.).

*Pardosa atra* Banks.
Departure Bay (Emerton 1920).

*Pardosa tristis* (Thorell).
Kyuquot (B.C.P.M., det. W.G.).

*Pardosa mackenziana* Keyserling.
Paradise mine, 9,000′ elevation (B.C.P.M., det. T.B.K.); Kyuquot (as *P. uncata* Thorell—synonym—B.C.P.M., det. W.G.).

*Pardosa sternalis* (Thorell). Synonym: *Pardosa vancouveri* Emerton 1917, Canad. Ent., Vol. 49, pp. 268–269, Fig. 20 (1, 2) (female), and Emerton 1919, Canad. Ent., Vol. 51, p. 106, Pl. 7, Fig. 6 (male).
Departure Bay (type locality of *vancouveri* (Emerton 1917)); Vancouver (as *vancouveri* Emerton 1917); Lytton (as *vancouveri* Emerton 1919); Kyuquot (as *sternalis,* B.C.P.M., det. W.G.).

*Pardosa metlakatla* Emerton 1917, Canad. Ent., Vol. 49, p. 268, Fig. 20 (3, 4).
Metlakatla (type locality, Emerton 1917), mountains north of Vancouver (Emerton 1917), Kyuquot (B.C.P.M., det. W.G.).

*Pardosa grœnlandica* Thorell.
Vancouver Island, Penticton, "Laggan (Lake Louise, Alberta) and Rocky Mountains south to Colorado" (Emerton 1920); Paradise mine, 9,000′ elevation (B.C.P.M., det. T.B.K., as *P. albomaculata* Emerton—synonym).

*Pardosa tesquorum* (Odenwall).
" Spray River, B.C., 4 July, 1914, Sanson " (Gertsch 1934, but the Spray River, Banff Park, Alberta, does not enter British Columbia and the record probably is not truly of our Province).

*Tarentula kochi* Keyserling.
Goldstream (B.C.P.M., det. ? ), Metchosin (B.C.P.M., det. R.V.C.), Departure Bay (as *Lycosa brunneiventris* Banks—synonym—Emerton 1920).

*Arctosa alpigena* (Doleschal).
" Yoho Valley Camp 8,000 feet," " mountains north of Vancouver " (as *Lycosa albohastata* Emerton—synonym—Emerton 1920).

## OXYOPIDÆ

*Oxyopes rufipes* Banks.
Vancouver, Departure Bay (Emerton 1920).

## GNAPHOSIDÆ

*Gnaphosa brumalis* Thorell.
Paradise mine, 9,000′ elevation (B.C.P.M., det. T.B.K.).

*Gnaphosa gigantea* (Keyserling).
Goldstream (B.C.P.M., det. R.V.C.); " Rockies in British Columbia " (as *G. conspersa*—synonym—Emerton 1902).

*Drassodes vastus* Banks.
Departure Bay (Emerton 1920).

*Drassodes neglectus* (Keyserling).
Departure Bay (Emerton 1920).

*Haplodrassus signifer* (C. L. Koch).
Victoria (Worley 1932), Departure Bay (as *Drassodes robustus* Emerton—synonym—Emerton 1920), Vancouver Island (as *Drassus troglodytes* C. L. Koch—synonym—Emerton 1921).

*Zelotes* (Drassyllus) *depressus* Emerton.
Kyuquot (B.C.P.M., det. W.G.).

*Zelotes subterraneus* (C. L. Koch).
Victoria (Worley 1932), Departure Bay (as *Z. ater* (Hentz)—synonym—Emerton 1920).

*Callilepis imbecilla* Westring.
Departure Bay (Emerton 1920); Savary Island, Vancouver (as *C. pluto* Banks—synonym—Emerton 1920).

*Pœcilochroa montana* Emerton.
Goldstream (B.C.P.M., det. R.V.C.).

*Pœcilochroa columbiana* Emerton 1917, Canad. Ent., Vol. 49, pp. 269–270, Fig. 21 (1, 2).
Departure Bay (type locality, Emerton 1917).

## CLUBIONIDÆ

*Clubiona canadensis* Emerton.

*Clubiona canadensis pacifica* (Banks). If this is a valid race, no attempt has been made to define its range. Treated as a synonym by Edwards 1958.
Kyuquot (B.C.P.M., det. W.G.); Triangle Island, Sartine Island (B.C.P.M., det. T.B.K.); Wellington, Vancouver, Kaslo, Kaslo Creek, Bear Lake, Glacier, Balfour, Ainsworth, Metlakatla (Edwards 1958); Departure Bay (Emerton 1920).

*Clubiona trivialis* C. L. Koch.
Manning Park, Yoho Park (Edwards 1958).
*Clubiona kastoni* Gertsch.
Wellington (Edwards 1958).
*Castianeira pacifica* (Banks).
Agassiz, Savary Island, Vancouver (Emerton 1920).
*Chiracanthium inclusum* (Hentz).
Chase (Emerton 1920).
*Phrurotimpus borealis* (Emerton).
Departure Bay (as *Phrurolithus b.* Em. in Emerton 1920).
*Phrurolithus pugnatus* Emerton.
Kaslo (Emerton 1920).
*Micaria pulicaria* (Sundevall).
Kyuquot (B.C.P.M., det. W.G.).

## ANYPHÆNIDÆ

*Anyphæna aperta* (Banks).
Kyuquot (B.C.P.M., det. W.G.).
*Anyphæna ruens* Chamberlin.
Victoria (Bryant 1931).
*Anyphæna pacifica* (Banks).
Departure Bay (as *Gayenna p.* Banks—synonym—in Emerton 1920).

## THOMISIDÆ—Crab Spiders

*Misumena vatia* Clerck.
Kyuquot (B.C.P.M., det. W.G.); Terrace, Okanagan Falls, Princeton, Metlakatla (Gertsch 1939).
*Misumenops asperatus* (Hentz).
Vernon (Gertsch 1939).
*Misumenops celer* (Hentz).
Victoria (Worley 1932); Victoria, Fairview (Gertsch 1939).
*Misumenoides formosipes* (Walckenær).
Manning Park (as *Misumenoides aleatorius* (Hentz)—synonym—B.C.P.M., det. T.B.K.), Victoria as *M. aleatorius* Gertsch 1939).
*Tibellus oblongus* (Walckenær).
Kyuquot (B.C.P.M., det. W.G.).
*Coriarachne brunneipes* Banks.
Victoria (Worley 1932); Wellington, William Head (Gertsch 1953).
*Coriarachne utahensis* Gertsch.
Kyuquot (B.C.P.M., det. W.G.); Cawston, Cultus, Wellington, Kelowna, Fort Nelson (Gertsch 1953); Terrace, Kaslo (Gertsch 1939); Creston (as "*C. versicolor* Keys." Emerton 1920, error, *vide* Gertsch 1939).
*Xysticus gulosus* Keyserling.
Fountain Valley near Lillooet, Hermead, Cawston, Keremeos, Victoria (Turnbull *et al.* 1965).
*Xysticus discursans* Keyserling.
Cawston, Hedley, Okanagan Falls, Yoho Park (Turnbull *et al.* 1965); Kaslo (Gertsch 1939, 1953).
*Xysticus triguttatus* Keyserling.
Summit Lake, also Field (paratype of *X. fervidus* Gertsch) (Turnbull *et al.* 1965).

*Xysticus pretiosus* Gertsch.
Kyuquot (B.C.P.M., det. W.G.); Terrace (Gertsch 1934, 1939); Departure Bay, Lytton (Turnbull *et al.* 1965).

*Xysticus ferox* (Hentz).
Summit Lake at 4,510′ elevation (Turnbull *et al.* 1965).

*Xysticus gertschi* Schick.
Departure Bay, Cawston, 16 miles east of Lytton, Spences Bridge, Cache Creek, Kamloops (Turnbull *et al.* 1965).

*Xysticus cunctator* Thorell.
Wellington, Departure Bay, Victoria, Oyster River, Fountain Valley near Lillooet, 16 miles east of Lytton, 11 miles west of Hedley, Rock Creek (Turnbull *et al.* 1965; *see also* under *X. californicus*).

" *Xysticus californicus* Keyserling."
Reported from Victoria, Grouse Mountain at 1,700′ (Emerton 1920), but probably these refer to *X. cunctator.* Turnbull *et al.* 1965, however, write of *californicus* " possibly north to Washington and southern British Columbia."

*Xysticus montanensis* Keyserling.
Wellington, Comox, Cawston, Oliver, Kaslo (Turnbull *et al.* 1965).

*Xysticus punctatus* Keyserling.
Fountain Valley near Lillooet, Lillooet, Fort Nelson, Kaslo, 28 miles north of Radium Hot Springs, Fairmont Hot Springs (Turnbull *et al.* 1965).

*Xysticus luctuosus* (Blackwall).
Summit Lake, Fort Nelson, Sardis, Agassiz, Fountain Valley near Lillooet, 10 miles north of Hope, Chase, 20 miles west of Golden (Turnbull *et al.* 1965); Hope, Fort Nelson (as *X. lutulentus* Gertsch, in Gertsch 1953).

*Xysticus canadensis* Gertsch.
Takla Landing (Turnbull *et al.* 1965).

*Xysticus gosiutus* Gertsch.
Wellington, Departure Bay (Turnbull *et al.* 1965, who believe records from Okanagan Falls and Cawston in Gertsch 1939 and 1953 represent *locuples*).

*Xysticus locuples* Keyserling.
Wellington, Departure Bay, North Vancouver, Cultus Lake, Fountain Valley near Lillooet, Clinton, Cawston, Okanagan Falls (Turnbull *et al.* 1965, including *malkini* Gertsch 1953 from Wellington).

*Xysticus elegans* Keyserling.
Seton Creek and Fountain Valley, both near Lillooet (Turnbull *et al.* 1965).

*Xysticus emertoni* Keyserling.
Okanagan Falls, Summit Lake (Turnbull *et al.* 1965).

*Xysticus obscurus* Collett.
Summit Lake, Liard Hot Springs (Turnbull *et al.* 1965).

*Xysticus benefactor* Keyserling.
Cawston, 20 miles north of Hope, east entrance of Manning Park, Osoyoos, 5 miles west of Oliver, 20 miles west of Golden (Turnbull *et al.* 1965).

*Xysticus durus* (Sœrensen).
Summit Lake (Turnbull *et al.* 1965).

*Xysticus leechi* Turnbull, Dondale & Redner 1965, Can. Ent., Vol. 97, p. 1261, Figs. 155, 158 (female only).
Mount St. Paul at Mile 392 of the Alaska Highway, B.C. (type locality Turnbull *et al.* 1965).

*Xysticus triangulosus* Emerton.
Atlin, Summit Lake, Fountain Valley near Lillooet, 10 miles north of Hope (Turnbull *et al.* 1965).

" *Synema obscurum* Keyserling " Gertsch 1939 (not *X. obscurus* Collett).
An immature recorded from Metlakatla (Gertsch 1939). This name is now a synonym of *Xysticus ellipticus* Turnbull *et al.* 1965, who maintain that the specimen from Metlakatla is misidentified in any case.

*Oxyptila pacifica* Banks.
Masset, Metlakatla (Worley 1932); Terrace (Gertsch 1939).

*Oxyptila conspurcata* Thorell.
Metlakatla (Emerton 1920).

*Thanatus striatus* C. L. Koch.
Comox (Dondale *et al.* 1964).

*Thanatus coloradensis* Keyserling.
Osoyoos (Dondale *et al.* 1964).

*Thanatus formicinus* (Clerck).
Wellington, Kamloops (Dondale *et al.* 1964); Penticton (as *T. lycosoides* Em.—synonym—Emerton 1920).

*Thanatus arcticus* Thorell.
Summit Lake (Dondale *et al.* 1964).

*Philodromus rufus* Walckenær.
Kyuquot (B.C.P.M., det. W.G.).

*Philodromus pernix* Blackwall.
Cawston (Dondale 1961).

*Philodromus spectabilis* Keyserling.
Masset, Vassant, Wellington, Mount Benson (3,300′), Lillooet, Cascade (Dondale 1961).

*Philodromus cespiticolis* Walckenær.
Osoyoos, Fairview, Okanagan Falls, Penticton, Fountain Valley near Lillooet, " Columbia, 2,800′ elevation."

## SALTICIDÆ—Jumping Spiders

*Salticus scenicus* (Clerck).
Victoria (B.C.P.M., det. W.G.); Vancouver, Lytton (Emerton 1920).

*Evarcha hoyi* (Peckham).
Kyuquot, Victoria (B.C.P.M., det. W.G.); Metlakatla (Worley 1932); Manning Park (B.C.P.M., det. T.B.K.); Victoria (Peckham 1909).

*Pellenes americanus* (Keyserling).
Victoria (Worley 1932).

*Pellenes jucundus* Peckham.
Glacier (Peckham 1909).

*Pellenes laggani* Peckham 1909, Trans. Wisc. Acad. Sci. Vol. 16, p. 560.
Glacier, which is mentioned before Laggan as if it was the type locality (Peckham 1909); Victoria (Worley 1932).

*Pellenes oregonensis* (Peckham).
Kyuquot (B.C.P.M., det. W.G.).

*Metaphidippus californica* (Peckham).
Kyuquot, Victoria (as *Marpissa c.* (Peckham), B.C.P.M., det. W.G.); " British Columbia " (Worley 1932); Victoria (B.C.P.M., det. R.V.C.).

*Phidippus johnsoni* (Peckham).
Vancouver, Victoria (Emerton 1920); "Queen Charlotte Island" (Worley 1932); Victoria, Duncan (Peckham 1909).

*Phidippus formosus* (Peckham).
Victoria (B.C.P.M., det. R.V.C.), Mill Bay (B.C.P.M., det. R.V.C.).

*Phidippus montivagus* Peckham.
According to the Peckhams 1909, this form is a synonym of their own species *P. tyrellii.* If this is true, *montivagus* (page 293, Pl. 24, Figs. 3, 3a) has page priority and would be the valid name, unless *albulatus* F. Cambridge can be shown to have even earlier validity. Both these synonyms are accepted without comment in Banks 1910 and Petrunkevitch 1911. Of *P. tyrellii* Peckham 1901 (Trans. Wisc. Acad. Sc., Arts & Lett., Vol. 13, pp. 296–297, Pl. 24, Fig. 4, male only), the origin is stated to be "Canadian Rocky Mountains, J. B. Tyrrell"; J. B. Tyrrell was engaged in surveying the southern British Columbia-Alberta Border during the summer of 1883, and the specimen was probably taken then.

*Metaphidippus insignis* Emerton.
Manning Park (B.C.P.M., det. T.B.K.); Glacier (as *Dendryphantes montanus* Emerton—synonym—in Emerton 1920).

*Metaphidippus protervus* (Walckenær).
Chase (as *Dendryphantes æstivalis* Peckham—synonym—Emerton 1920).

*Metaphidippus æneolus* (Curtis).
Masset (as *Dendryphantes a.* Worley 1932).

*Metaphidippus imperialis* (Peckham).
As *Dendryphantes imperialis* (Peckham), Savary Island, Vancouver (Emerton 1920).

*Dendryphantes guttatus* Banks.
Victoria (Worley 1932).

*Sitticus palustris* (Peckham).
"British Columbia" (as *Sittacus p.* (Peck.) Worley 1932).

*Sitticus ranieri* (Peckham 1909), Trans. Wisc. Acad. Sc., Arts & Lett., Vol. 16, pp. 520–521, Pl. 43, Figs. 5, 5c (male only).
Glacier, Yoho (Emerton 1920). The Peckhams mentioned their male of this species from Glacier as if it was the type.

*Neon reticulatus* Blackwall.
Terrace, Wellington (Gertsch & Ivie 1955); ?"Canadian Rockies" (as *Neon nelli* Peckham 1909).

*Icius similis* Banks.
Victoria (Peckham 1909, Emerton 1920).

## ULOBORIDÆ

*Hyptiotes gertschi* Chamberlin & Ivie.
Map shows records from the vicinity of Victoria, Kyuquot, Nanaimo, and Kamloops (Muma & Gertsch 1964); Kyuquot (B.C.P.M., det. W.G.).

## DICTYNIDÆ

*Dictyna major* Menge.
Map shows records from vicinity of Victoria, Vancouver, Lytton (Chamberlin & Gertsch 1958).

*Dictyna peragrata* Bishop & Ruderman.
Kyuquot (B.C.P.M., det. W.G.); Forbidden Plateau (4,000′); also map shows records from vicinity of Hope, Kootenay Lake, and Fernie (Chamberlin & Gertsch 1958).
*Dictyna olympiana* Chamberlin.
Wellington (Chamberlin & Gertsch 1958).
*Dictyna sublata* Hentz.
Kyuquot (B.C.P.M., det. W.G.).
*Dictyna minuta* Emerton.
Vernon, Kelowna, and Salmon Arm (Chamberlin & Gertsch 1958).
*Dictyna annulipes* Blackwall.
Salmon Arm, also map shows records from vicinity of Victoria and Howe Sound (Chamberlin & Gertsch 1958).
*Tricholathys spiralis* Chamberlin & Ivie.
Kyuquot (B.C.P.M., det. W.G.).

## AMAUROBIIDÆ

*Callobius severus.*
Kyuquot (B.C.P.M., det. W.G.); Victoria (as *Amaurabius s.*—synonym—B.C.P.M., det. R.V.C.); Cameron Lake, Sidney, Nanaimo, Departure Bay (Chamberlin 1947).
*Callobius pictus.*
Kyuquot (B.C.P.M., det. W.G.); Florence Lake (B.C.P.M., det. R.V.C.); Departure Bay, Metlakatla (as *Amaurabius p.* Emerton 1920); Sidney, Port Alberni, Cameron Lake, Florence Lake, Departure Bay (Chamberlin 1947).
*Callobius canada* Chamberlin & Ivie 1947, Am. Ent. Soc. Ann. 40, p. 36, Figs. 28, 34.
Salmon Arm (type locality, Chamberlin & Ivie 1947).
*Titanœca americana* Emerton.
Lytton (Emerton 1920).

## LITERATURE CITED

ARCHER, A. F.
1951. Studies in Spiders *Argiopidæ*. Amer. Mus. Nov. 1487.
BRYANT, E.
1931. American *Anyphœninæ*. Psyche, Vol. 38, pp. 102–126.
CARL, G. C., and HARDY, G. A.
1945. Flora and Fauna of Paradise Mine. Ann. Report B.C. Prov. Museum for 1944.
CARL, G. C.; GUIGUET, C. J.; and HARDY, G. A.
1951. Biology of Scott Island Group. Ann. Report B.C. Prov. Museum for 1950.
1952. Natural History of Manning Park. Occ. Paper 9, B.C. Prov. Museum.
CHAMBERLIN, R. V.
1941. Some *Agelenidæ*. Ann. Ent. Soc. Am., Vol. 34, pp. 585–628.
1948. Some American *Erigonidæ*. Ann. Ent. Soc. Am., Vol. 41.
CHAMBERLIN, R. V., and IVIE, W.
1932. North American Spiders *Cybœus* and *Cybœina*. Bull. U. Utah, Vol. 23, No. 2.
1935. Miscellaneous New American Spiders. Bull. U. Utah, Vol. 26, No. 4.
1937. New *Agelenidæ*. Ann. Ent. Soc. Am. Vol. 30.
1940. The Genus *Cicurina*. Bull. U. Utah, Vol. 30, No. 18, Biol. Ser. 5, No. 9.

CHAMBERLIN, R. V., and IVIE, W.
1942. New Spiders. Bull. U. Utah, Vol. 32, No. 13, Biol. Ser. 7, No. 6.
1943. American *Linyphiidæ*. Bull. U. Utah, Vol. 33, No. 10, Biol. Ser. 7, No. 6.
1947a. Spiders of Alaska. Bull. U. Utah, Vol. 37, No. 10, Biol. Ser. 10, No. 3.
1947b. North American *Amaurobiidæ*. Bull. U. Utah, Vol. 38, No. 8, Biol. Ser. 10, No. 8.
1948. New American *Dictynidæ*. Bull. U. Utah, Vol. 38, No. 15, Biol. Ser. 10, No. 6.

CHAMBERLIN, R. V., and GERTSCH, W.
1958. Spider Family *Dictynidæ* in America. Bull. Amer. Mus. Nat. Hist., Vol. 116, pp. 1–152.

DONDALE, C.
1961. Revision of *aureolus* Group of *Philodromus*. Canad. Ent., Vol. 93, pp. 199–221.

DONDALE, C.; TURNBULL, A.; and REDNER, J.
1964. Revision of Nearctic—*Thanatus*. Canad. Ent., Vol. 96, pp. 636–656.

EDWARDS, R. J.
1958. *Clubioninæ* of United States, Canada, and Alaska. Bull. Mus. Comp. Zool. Harvard, Vol. 118, No. 6.

EMERTON, J. H.
1882. New England Spiders of the Family *Theridiidæ*. Trans. Conn. Acad. Sc., Vol. 6, p. 54.
1894. Canadian Spiders. Trans. Conn. Acad. Sc., Vol. 9, pp. 400–429.
1915. Spiders from New England. Trans. Conn. Acad. Sc., Vol. 20, pp. 133–144.
1917. New Spiders from Canada. Canad. Ent., Vol. 49, pp. 261–272.
1920. Catalogue of Spiders of Canada. Trans. Roy. Can. Inst., Vol. 12, pp. 209–338.
1921. Canadian and Arctic Spiders. Psyche, Vol. 28, pp. 165–169.
1925. New Spiders from Canada. Canad. Ent., Vol. 57, pp 65–69.
1926. New Spiders from Canada. Canad. Ent., Vol. 58, pp. 115–118.

EXLINE, H.
1936. Nearctic Spiders—genus *Cicurina*. Amer. Mus. Nov. 850.
1938. *Agelenidæ* and *Hahniidæ* (of Washington). Univ. Wash. Publ. Biol., Vol. 9, No. 1, pp. 1–44.

GERTSCH, W. J.
1934a. Notes on American Spiders (*Lycosidæ*). Amer. Mus. Nov. 693.
1934b. Notes on American Spiders (*Thomisidæ*). Amer. Mus. Nov. 707.
1934c. Notes on American Spiders. Amer. Mus. Nov. 726.
1964. Spider Genus *Zygiella* in North America. Amer. Mus. Nov. 2188.

GERTSCH, W. J., and IVIE, W.
1955. The Genus *Neon*. Amer. Mus. Nov. 1743.

GERTSCH, W. J., and ARCHER, A. F.
1942. New American *Theridiidæ*. Amer. Mus. Nov. 1171.

GERTSCH, W. J., and JELLISON, W.
1939. A Collection of Spiders from Montana. Amer. Mus. Nov. 1032.

KASTON, B.
1948. Spiders of Connecticut. Conn. State Geol. and Nat. Hist. Survey, Bull. 70.

KERMODE, F.
1935. Accessions; *Arachnida*. Ann. Rep. B.C. Prov. Museum for 1934.
LEVI, H. W.
1951. New and Rare Spiders from Wisconsin. Amer. Mus. Nov. 1501.
1957a. Spider Genera *Enoplognatha, Theridion, Paidisca*. Bull. Amer. Mus. Nat. Hist., Vol. 112, pp. 1–123.
1957b. Spider Genera *Crustulina* and *Steatoda* in North America. Bull. Mus. Comp. Zool. Harvard, Vol. 117, No. 3.
1959. The Genus *Latrodectus*. Trans. Amer. Microscopic Soc., Vol. 78, pp. 7–43.
1963. American Spiders of the Genera *Audifia, Euryopis, Dipœna*. Bull. Mus. Comp. Zool. Harvard, Vol. 129, No. 2.
LEVI, H. W., and LEVI, L.
1955. Spiders from Glacier Park (Montana). Can. Field Nat., Vol. 69 (2), p. 39.
MCCRONE, J. D., and LEVI, H. W.
1964. *Latrodectus* in North America. Psyche, Vol. 71, pp 12–27.
MUMA, M. H., and GERTSCH, W. J.
1964. The Spider Family *Uloboridæ* in North America, North of Mexico. Amer. Mus. Nov. 2196.
PECKHAM, G., and PECKHAM, E.
1909. Revision of *Attidæ* of North America. Trans. Wisc. Acad. Sc., Vol. 16, pp. 355–646.
RAHT, K.
1935. Black Widow Spider. Ann. Rep. B.C. Prov. Museum for 1934, p. 13.
SPENCER, G.
1961. Identity of Black Widow Spider in British Columbia. Proc. Ent. Soc. B.C., Vol. 58, p. 36.
TURNBULL, A.; DONDALE, C.; and RADNER, J.
1965. Genus *Xysticus* in Canada. Canad. Ent., Vol. 97, pp. 1233–1280.
WORLEY, L. G.
1932. Spiders of Washington. Univ. Wash. Publ. Biol., Vol. 1, No. 1, pp. 1–63.
ZORSCH, H.
1937. *Lepthyphantes*. Amer. Midl. Nat., Vol. 18, p. 885.

## GAZETTEER NOTES

Ainsworth ..... 49° 43′ 116° 56′
Amos Island ..... 50° 01′ 127° 34′
Balfour ..... 49° 35′ 116° 59′
Bear Lake (probably one near Kaslo).
Mount Benson ..... 49° 10′ 124° 03′
Bunsby Islands ..... 50° 05′ 127° 01′
Cameron Lake ..... 49° 18′ 124° 37′
Cascade ..... 49° 01′ 118° 12′
(There is a less likely location called Cascade at 49° 15′ 122° 15′.)
Cawston ..... 49° 11′ 119° 45′
Chase ..... 50° 49′ 119° 42′
Coldstream ..... 50° 13′ 119° 10′
Crofton ..... 48° 51′ 123° 39′
Cultus (Lake) ..... 49° 01′ 122° 00′
Departure Bay ..... 49° 13′ 123° 56′
Elko ..... 49° 17′ 115° 12′
Fairmont Hotsprings ..... 50° 20′ 115° 56′
Fairview ..... 49° 11′ 119° 39′
Florence Lake ..... 48° 28′ 123° 31′
Glacier ..... 51° 15′ 117° 30′
Goldstream ..... 48° 27′ 123° 33′
Grouse Mountain ..... 49° 28′ 123° 20′
Hedley ..... 49° 20′ 120° 04′
Hermead (not found).
Hunter Island ..... 52° 00′ 128° 00′
Illocet (not found).
Kamil Island ..... 50° 00′ 127° 33′
Keremeos ..... 49° 13′ 119° 50′
Kettle River .....49° to 50° 119° 00′
Laggan (although this name covers a C.P.R. track subdivision from Brickburn (Alberta) to Field (British Columbia) it is also the old name for Lake Louise Station (Alberta), and I believe that spiders described from "Laggan" by the Peckhams and by Emerton were really from Alberta, notwithstanding the expression "Laggan, British Columbia," used by various authors).
Liard Hotsprings ..... 59° 27′ 126° 05′
Malahat ..... 48° 35′ 123° 18′
Metlakatla ..... 54° 22′ 130° 28′
(There is also Metlakatla nearby in Alaska which was visited by the Harrington expedition.)
Neaves Island ..... 50° 00′ 127° 33′
Okanagan Falls ..... 49° 20′ 119° 34′
Oyster River ..... 49° 52′ 125° 07′
Paradise Mine ..... 50° 28′ 116° 17′
Powell River ..... 49° 52′ 124° 32′
Rock Creek (at least eight localities by this name in the Province; possibly this is the one near Grand Forks).
Saanich Inlet ..... 48° 35′ 123° 20′
Savary Island ..... 49° 57′ 124° 55′
Sartine Island ..... 50° 00′ 128° 55′
Mount St. Paul ..... 58° 40′ 124° 45′
Spray River (runs from the height of land (the interprovincial border) into Banff Park, Alberta; not in British Columbia).
Spider Island ..... 51° 50′ 128° 10′
Squamish ..... 49° 45′ 123° 10′
Tranquille ..... 50° 44′ 120° 31′
Triangle Island ..... 50° 54′ 129° 05′
Union Island ..... 50° 00′ 127° 18′
Vaseux (Vaseaux) Lake . 49° 18′ 119° 02′
Vassant (not found).
Wellington ..... 49° 13′ 123° 58′
William Head ..... 48° 21′ 123° 32′

Printed by A. SUTTON, Printer to the Queen's Most Excellent Majesty
in right of the Province of British Columbia.
1967

1M-567-4114