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VICTORIA NATURAL HISTORY SOCIETY

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COVER PHOTO: by Bertha Gow
Nature's Art: dry teasel leaves and seed head

AN ANNOTATED LIST OF RARE AND UNCOMMON VASCULAR PLANTS OF THE VICTORIA AREA

by Adolf Ceska
B.C. Provincial Museum

I. Introduction

Southern Vancouver Island, especially the area around Victoria, has a very special flora. The rain shadow of the Olympic Mountains and the Sooke Hills help create a special, mediterranean climate which is characterized by wet winters and dry summers.

In the first part of this article, I would like to summarize the history of botanical exploration in the Victoria area. In my opinion, Dr. C.F. Newcombe's period of exploration (ca. 1900-1924) is a climax in this history.

Has the flora of Victoria changed with development, or have we merely lost sight of old localities? Undoubtedly both of these statements are valid.

Many species show a marked decrease in the number of known localities. For example, in the past Castilleja levisecta was collected in many localities in the Victoria area. Recently, however, it is known in British Columbia only from Trial Island, Alpha Islet, and Beacon Hill, where Mrs. J.M. Woollett observed a few plants remaining from an original larger population.

For several years my wife and I have been trying to find localities of plants reported from Victoria in earlier times but not collected recently. I have now finalized a list of the species sought and as a challenge for 1986 present it here to all naturalists interested in the botany of the Victoria area.

The species are ordered alphabetically by their Latin names and grouped into several categories according to flowering time. This time is given in parentheses after the Latin

name. The numbers refer to the month of the year, i.e. 5 = May, 6 = June. A short description, the habitat, and a list of localities follow. A short comment is appended where necessary. Grasses, sedges, rushes and aquatics are omitted.

I hope that you can help find the lost children of our Victoria flora. If you come across some of the species mentioned in this article, or if you find other interesting species, please contact me. My home phone number is 477-1211 (leave your message on the answering machine if I am not at home), or write me at P.O. Box 1761, Victoria, B.C., V8W 2Y1. Do not collect specimens for pressing unless the species is very abundant. Successful hunting!

II. History of botanical exploration

The arrival of Dr. W.F. Tolmie in Victoria in 1859 heralded the beginning of local botanical investigations and in 1875, 1883 and 1884 the Dominion botanist John Macoun's collecting trips to Vancouver Island led to several important discoveries. On his first trip to Victoria John Macoun collected an inconspicuous plant which turned out to be a new species that Trelise later named Macoun's meadowfoam - *Limnanthes macounii*. With sharp eyes, serendipity, and perhaps some help from Dr. Tolmie, John Macoun made many important collections, not only of vascular plants, but also of bryophytes and lichens.

In the British Columbia herbaria there are not too many collections from the early era. Dr. Tolmie sent his specimens to Sir W. Hooker at Kew Botanical Gardens and most of John Macoun's specimens from his early visits are deposited in the National Museum in Ottawa. After his retirement in 1912, John Macoun moved to Sidney and in spite of a paralytic stroke that year he continued to collect plants. In 1917 he donated his later collections to the Provincial Museum.

At the turn of the century a new generation of botanists began work in the Victoria area. J.R. Anderson and his brother W.B. Anderson collected extensively in British Columbia, but their activities were concentrated in the Victoria area and the rest of Vancouver Island. Their work spanned a long time period. There are many specimens collected either by J.R. or W.B. Anderson in the Provincial Museum. Unfortunately, when J.R. Anderson offered his herbarium for sale, the buyer was not the provincial government but Washington State University in Pullman.

The collecting activities of Dr. C.F. Newcombe overlap with those of the Anderson brothers. Dr. Newcombe and his son Bill made many trips with J.R. Anderson and put forth tremendous collecting efforts. Dr. Newcombe donated many herbarium specimens to the Provincial Museum. His entire collection of about 6,500 specimens, however, was bought by the B.C. Provincial Government much later, in 1961, from the estate of the late Bill Newcombe. This was almost thirty years after the death of Dr. Newcombe.

Before and during World War II G.A. Hardy was a curator of botany at the Provincial Museum. He made extensive collections on Vancouver Island and in other parts of British Columbia. He and his wife (née Winifred V. Redfern) contributed significantly to the botanical knowledge of British Columbia and assembled several interesting collections from the Victoria area.

In 1952 Miss M.C. Melburn retired and moved to Victoria. She had been a high school

teacher in Saskatchewan and had made a good herbarium collection of Saskatchewan plants which she sold to Laval University before her retirement. She came to Victoria just to rest and play golf. One day, however, Miss Melburn's golf ball went astray and landed on rock outcrops beyond the golf course. When Miss Melburn went to pick it up, she saw flowers she had never seen before and forgot all about the golf ball.

She started to collect plants again and from 1953 onwards amassed a large collection. She donated many specimens to the Provincial Museum, the herbarium of the University of Victoria, University of British Columbia and institutions in Ottawa. She corresponded with many botanists in Canada and the U.S.A. and sent them her specimens for identification, or plant material for their studies. Unfortunately, Miss Melburn burned all her correspondence when she fell ill and we will never have a full account of the specimens she sent away. Over the years she found many species previously unreported for the Victoria area and made valuable observations on interesting localities.

In 1972 Szczawinski and Harrison published the "Flora of Saanich Peninsula" as an Occasional Paper of the B.C. Provincial Museum. Their work was based on earlier botanical specimens from the Provincial Museum, their own collections and those of Miss Melburn. On the one hand, their Flora summarizes well the botanical knowledge of the Saanich Peninsula. On the other hand, however, it includes quite a few reports of species based on misidentified specimens. Many of these erroneous records came from Miss Melburn's collections, most of them were species belonging to difficult taxonomical groups, and many of them were not misidentified by Miss Melburn but by the experts to whom she sent the duplicates for identification. In 1980 Miss Melburn donated her herbarium of several thousand specimens to the B.C. Provincial Museum. Her collection is a significant contribution to the knowledge of the Victoria area. With this herbarium at hand, Szczawinski and Harrison's Flora can be revised.

I will end my brief historical summary here. Several important periods of collecting activities in and around Victoria can be distinguished clearly. They are: Dr. Tolmie's period, for which we do not have much documentation; Macoun's 1880's collections, available in the National Museum in Ottawa; Newcombe and the Andersons period, well documented in the B.C. Provincial Museum with additional material in Pullman, Washington; and Miss Melburn's period. In each of these periods there were reports of interesting plants, many of which were not collected later. Even though we do not know much about Dr. Tolmie's collections, in the notes of Dr. Newcombe there are accounts of searching in vain for heterocodon (*Heterocodon rariflorum*) at Cloverdale, Dr. Tolmie's farm. Macoun's locality of idahoa (*Idahoa scapigera*) on Mount Finlayson was not known to later collectors, and many other plants found by the Andersons, the Newcombes, Miss Melburn and others have not been collected again. Efforts must be made to shed light on this state of affairs.

III. Spring flora

A. Native Species

Geyer's onion - *Allium geyeri* (5). Similar to slimleaf onion. (*A. amplexans*), but plants smaller and flower heads with fewer flowers. In one variety (var. *texana*) bulbils are developed in flower heads. Open rocky headlands, sandy places. Chain Islands off Saltspring Island (TRA 1959: reef off Chain Island nearest to Goat Island), Uplands (MCM

1962), Cadboro Bay (JM 1893), Port Alberni (WvD 1981: Somass Delta), Sidney (CFN 1923), off Paterson Pt. in Colwood (AOC 1977), Albert Head near Metchosin (JH 1962), near Nanaimo (JM 1908).

Heart-leaved arnica - *Arnica cordifolia* (5-7). Large heads of yellow flowers, heart-shaped leaves. Open places, forest margins. Mt. Finlayson (CFN 1916: near summit; in the brush on the N side of the mountain, below the level of the summit).

Deltoid balsamroot - *Balsamorhiza deltoidea* (5-7). Similar to the interior balsamroot (*B. sagittata*), but plants not gray. Open Garry oak forests, grassy places. There are many older collections of this plant from the Victoria area: Esquimalt (JRA 1899), Royal Oak (by the Royal Oak Scout Hall (VELG 1937), Cloverdale (Tolmie's Farm), (CFN 1890), Portage Inlet (TCB 1976), Skirt Mtn. (JRA 1896), Blenkinsop Lake (CFN 1916), Mill Hill (JH 1963: *Arbutus* grove between two rock outcrops), Witty's Lagoon (G.C. Carl 1965). Known to me from Thetis Lake and one clump on Beacon Hill. Outside Victoria it occurs on Mt. Tzuhalem and in Campbell River (end of Spit Rd.). Old locality in Koksilah (CFN no date) forgotten/lost.

Little grape fern - *Botrychium simplex* (5-6). Tiny plant with small entire (or lobed) sterile leaf and a small cluster of sporangia. Seepy places on rocks. Sooke Hills, Mt. Benson, Port Alberni.

Winged water starwort - *Callitriche marginata* (5). Tiny bright green plant with small opposite leaves; forming dense mats in vernal pools, depressions on the rock, shallow soil. Known from Mitlenatch Island and the Victoria area. Uplands Park, Cattle Point.

Contorted-pod evening primrose - *Camissonia contorta* (5-7). Tiny annual plant with a few linear leaves and small yellow flowers. Looks more like a crucifer than an evening primrose. Sand dunes along the seashore. Saanichton Spit, Sidney Island.

Golden Indian paintbrush - *Castilleja levisecta* (5). Golden yellow flowers and floral bracts. Meadows on the shore. Known from Trial Island and Flora Islet; old collections from the Victoria area (one clump still surviving in Beacon Hill Park): Beacon Hill (JRA 1899), Oak Bay (JRA 1900), open meadows in Foul Bay (WRC 1918); Blenkinsop Lake (WBA 1920, GAH 1952), Pat Bay highway (MCM 1954), Dallas Rd. (CFN 1907).

Californian hedge-parsley - *Caucalis microcarpa* (5-6). Similar to rattlesnake weed (*Daucus pusillus*), but umbels with fewer rays, fruits with straight (not hooked) spines. Seepy places. Saturna Island (HJ 1976: Mt. Pyke), Saltspring Island (HJ 1982: Mt. Maxwell), Nanaimo (WRC 1917). - Probably overlooked.

Lace lip-fern - *Cheilanthes gracillima*. Forming dense clumps of dark grayish green, finely dissected leaves. Rock fissures. Mt. Finlayson.

Brandegge's spring beauty - *Claytonia (=Montia) saxosa* (3-4). Small annual with a rosette of spatulate leaves and clusters of 3-7 flowers subtended by a pair of lanceolate bracts. Shallow soil, rock outcrops with wet depressions. Uplands Park, the war memorial (MCM 1962, 1967). - Not collected recently.

Pigmy-weed - *Crassula erecta* (5-6). Tiny (1-5 cm) annual succulent plant with opposite leaves and inconspicuous flowers; forms dense mat conspicuous by its reddish colour. Rocks along the seashore. Albert Head, Rocky Point, Gulf Islands.

Common crocidium - *Crocidium multicaule* (4-5). Tiny annual composite with small, rather succulent leaves at the base and relatively large heads of golden yellow flowers. On rock outcrops and on beaches. Saanich Arm (JRA 1897, 1900, CFN 1919), Mt. Finlayson (JM 1908, Long 1974, Trotter 1976), Mt. Wells (E. Wass 1975), Old Baldy Mtn. (A. Gorham 1957, JH 1962), Mt. Tzuhalem, Mt. Prevost, Gulf Islands. On beaches from Chemainus to Campbell River.

Indian rice - *Fritillaria camschatcensis* (5-6). Similar to chocolate lily, but more robust, flowers more open and darker. Salt marshes. Common in northern and western parts of Vancouver Island. Rare in our area. Oak Bay district (VELG 1930), Trial Island (TCB 1974).

Common bluecup - *Githopsis specularioides* (5-6). Small annual species (1-5 cm tall) with deep blue flowers, whitish in the throat. Seepy places, seasonally wet depressions. Empress Mtn. (RC 1926), Boulder Hill near Sooke (RC 1926), Port Alberni (WvD 1982). Recently collected on Jocelyn Hill, Koksilah River, Sooke Hills, Hill 60, Horne Lake.

Idahoa, scalepod - *Idahoa scapigera* (3-4). Small crucifer with white flowers and single large rounded pod at the top of a scapose stem. Seepages on rocks. Observatory Hill (CFN 1920, 1923), Mt. Douglas (WVR 1925, GAH 1946: narrow rock benches on steep S slope, and a few other collections), Mt. Finlayson (JM 1887), Jocelyn Hill, Mill Hill (G.A. Allen 1983), Lone Tree Hill, Sooke Hills (HR), Saturna Island (HJ 1974), Saltspring Island (HJ 1980: Mt. Maxwell and Mt. Tuam). - The locality on Mt. Douglas not confirmed recently.

Macoun's meadowfoam - *Limnanthes macounii* (3-4). Small annual plant with yellow-green, divided leaves and whitish flowers which have four sepals and four petals. Seasonally wet depressions, seepages, open forests. Known to us (AOC) from about 30 populations between East Sooke Park and Yellow Point. There are several old localities (Victoria breakwater, Dallas Rd., West Burnside Rd.) where the species has not been re-collected recently. More populations possibly occur on private waterfronts in the Uplands/Oak bay area.

Blue toadflax - *Linaria texana* (or *L. canadensis* var. *texana*) (5-6). Slim annual plant with alternate leaves and cleistogamous flowers, sometimes with a show flower on the top of the stem. Seepy places on rocks. Gulf Islands, Sooke Hills, Cowichan Lake. Old specimen from Esquimalt (JRA 1897).

Large-fruited lomatium - *Lomatium macrocarpum* (5). Stiff grayish plant with dissected leaves and loose umbles of whitish flowers. Common plant in the interior sagebrush communities. Mt. Finlayson (CFN 1916).

Seaside bird's-foot trefoil - *Lotus formosissimus* (5-6). Decumbent plant with relatively large showy flowers. These are yellow combined with purple. Open grassy places. Known from Trial Island, Alpha Islet, Bentinck Island, Church Point; old collections from Oak Bay (JRA 1896: rich damp soil; CFN 1919: sea from Oliver's to Golf course's fence), Royal Oak (JM 1913), Foul Bay (JM 1912), Williams Head (GAH 1953). Outside our area in Alberni (JM 1887) and Nanaimo (HJS 1964).

White meconella - *Meconella oregana* (3-5). Tiny annual plant with small white flowers and elongated capsules. Open places, wet depressions. Mt. Finlayson (WRC 1918), (GAH 1925), Observatory Hill (CFN 1917, WAN 1928, GAH 1931), Mt. Douglas (CFN 1916,

WVR 1925, GAH 1945, 1952: a small colony on W slope). Thetis Park (MCM 1958, LJC 1958), Saturna Island (HJ 1974), Galiano Island (HJ 1980: Mt. Sutil). Also on Jocelyn and Nanoose Hills. - Not re-collected on Mt. Douglas and Mt. Finlayson.

Coast microseris - *Microseris bigelovii* (5). Looks like a small dandelion with narrow leaves and several tooth-like segments, heads of yellow flowers hanging down before blooming. Open places, on rocks. Oak Bay (JRA 1896), Uplands (A. Young 1963, MCM 1968), Saxe Point (STA 1975), Dallas Road (CFN 1910, 12), Wellington (WRC 1916), Gonzales Hill (CFN 1923: on S side, in gritty soil near foot), Church Point. - Recently known from Cattle and Church Points.

Lindley's microseris - *Microseris lindleyi* (4-5). Large yellow composite similar to yellow salsify (*Tragopogon*). Pappus consists of strange scales. Open rocky places, open forest. North Pender Island (HJ 1970: Oak Bluffs), Saturna Island (HJ 1970), Ruxton Island. - Discovered as new to British Columbia only recently, possibly overlooked in other localities.

Dwarf-sandwort - *Minuartia* (= *Arenaria*) *pusilla* (4-5). Dwarf plant with upright stems and small white flowers. On rocks, close to the ocean. Church Point on Rocky Point (AOC 1977).

Oval-leaved mitrewort - *Mitella ovalis* (5-6). This is the only lowland mitrewort in our area. Another one collected in the Port Alberni area is leafy mitrewort (*M. caulescens*) which can be recognized by its leafy stems. Wet forests. Many collections from the coast: Sooke, Loss Creek, Port Renfrew, Weeks Lake, Shawnigan Lake, Nitinat, Cameron Lake, Cowichan Lake. In the Victoria area: Goldstream (numerous collections). On Gulf Islands known from Saltspring Island (Bird 1971, Shank 1974: Mt. Bruce, C.J. Clements 1979: Mt. Tuam).

Owl-clover - *Orthocarpus* spp. (5-6). Other species of *Orthocarpus*. The most common is dwarf owl-clover *O. pusillus*. Less frequent is narrow-leaved owl-clover, *O. attenuatus*. Bearded owl-clover, *O. faucibarbus*, is known to me only from Gordon Head and Cattle Point; paintbrush owl-clover, *O. castillejoides*, from Cattle Point and Trial Island also collected in Port Renfrew (SM 1976) and on Sarita River (Young & Hubbard 1963); and hairy owl-clover, *O. hispidus* only from Cattle Point. Mountain owl-clover, *O. imbricatus*, which occurs on mountains, is known on Vancouver Island only from Little Mt. Hooper.

Field crazyweed - *Oxytropis montana* (= *campestris*) (5-6). Grayish green pubescent plant with compact racemes of large yellow flowers. Open meadows, rock outcrops. On mountains of Vancouver Island. In our area on Trial Island.

Fragrant popcornflower - *Plagiobothrys figuratus* (5-6). Similar to Scouler's popcornflower (*P. scouleri*) but flowers large. Seasonally wet depressions. Wellington (WRC 1918), Hornby Island (AOC). - One poor specimen from Oak Bay, identified as this, is probably *P. scouleri*.

Slender popcornflower - *Plagiobothrys tenellus* (4). Similar to Scouler's popcornflower (*P. scouleri*), but stems upright with a rosette of basal leaves. Open places, rock outcrops Observatory Hill (WRC 1918), Mt. Douglas (WVR 1925, GAH 1925, 1942), Thetis Park (MCM 1958), Gulf Islands (HJ), Mt. Tolmie (CFN 1915, 1916, 1919), Mill Hill (CFN 1916). - From the Victoria area recently known to me only from Lone Tree Hill.

Water-plantain buttercup - *Ranunculus alismaefolius* (5). Upright stems with large lanceolate leaves and bright yellow flowers. Seasonally wet depressions. Uplands Park (numerous collections), Oak Bay (JRA 1896, CFN 1890), Cadboro Bay Road (A. Mackay & JRA 1900).

Californian buttercup - *Ranunculus californicus* (4-5). Similar to western buttercup (*R. occidentalis*), but flowers with more petals and achenes with short, curved beak. Meadows at seashore. Little Trial Island, Alpha Islet, Griffin Island. - Forms hybrid swarms with western buttercup.

Lobb's water buttercup - *Ranunculus lobbii* (4-5). Small white-flowered aquatic buttercup with finely dissected submerged leaves and small trilobed floating leaves. Shallow water, vernal pools, mucky ground. Langford (CFN 1919: SE of old lime kiln near Florence Lake; CFN 1921: Atkins Road about 1/2 mile from station on Atkins Road), Glen Lake ("D.C.B." 1940: in black muck on pasture), swamp in Oak Bay (CFN 1890), near Blenkinsop Lake (WAN 1929, Mt. Douglas X Road (GAH 1948). - no recent collections.

Snakeroot sanicle - *Sanicula arctopoides* (4-5). Rosette of green, dissected leaves with short-stemmed bright yellow umbels. Open places along the seashore. Chain Island (JRA 1897), Beacon Hill Park (JRA 1900, GVC 1924), Clover Point (JM 1914), Foul Bay (WRC 1918, GAH 1942: grassy flat edge of clay cliff), Chinese graveyard (J. Fyles 1975), Trial Island (GAH 1951, 1953), off Menzies Street (CFN 1917: in grass, waterfront), Dallas Road (Anon. 1948), Saxe Point (GM & FK 1963).

Purple sanicle - *Sanicula bipinnatifida* (5-7). Large leaves are bluish, dissected with sharp teeth, stems with tight umbels of purple flowers. Open places, shrubs, along the seashore. Oak Bay (JM 1913), Uplands (several collections), Cattle Point (BWD 1965), Beacon Hill (CFN 1911, GVC 1924), Mt. Douglas vicinity (MCM 1953), Thetis Lake Park (Long 1974), Cloverdale district (CFN 1919), Blenkinsop Road (Anon. 1948), near Rithet's bog (ASH 1966), Sidney (VELG 1927), Dallas Road waterfront (CFN 1917).

Small-flowered tonella - *Tonella tenella* (4-5). Similar to blue-eyed Mary (*Collinsia*), but leaves trifoliate. Open rock outcrops. Saltspring Island (G.W. Douglas).

Clover - *Trifolium* spp. (5-6). There are several interesting clovers on southern Vancouver Island. The rarer ones are *T. depauperatum*, *T. macraei* (old collection from Oak Bay - JM 1908), *T. cyathiferum*. From introduced species, one can find in our area *T. fragiferum* and *T. subterraneum*. Open places.

Howell's triteleia - *Triteleia howellii* (5-6). Tall onion-like plant with umbels of several large blue flowers. Open places, forest margins. Oak Bay (JRA 1896: rich loam amongst clumps of scrub oak), Thetis Lake (JRA 1901, 1904, WRC 1919), Uplands (CFN 1917), Beacon Hill (GAH 1952), Saanich Arm (WAN 1919). - Recently found at Witty's Lagoon by H. Roemer.

Dwarf blueberry - *Vaccinium caespitosum* (5-7). Creeping blueberry with small dentate leaves. Common at higher elevations, in coastal meadows in our area and on Mitlenatch Island. Oak Bay district (JRA 1896, CFN 1924), Beacon Hill (JM 1913), Foul Bay district (WRC 1918), Rithet's swamp (CFN 1924), Mt. Tolmie (CFN 1916), Uplands district (WAN 1928), Victoria (WAN 1929).

Nuttall's yellow violet - *Viola praemorsa* (= *nuttallii*) (5-6). Yellow-flowered violet with lanceolate leaves gradually narrowing towards the petioles. Open places, forest margins.

Scattered localities in the Victoria area, on Gulf Islands, and near Duncan.

Rocky Mountain woodsia - *Woodsia scopulina* (5-8). Similar to the fragile fern (*Cystopteris*), but plants glandular and with scattered hairs. Rocks exposed to sun. Scattered on southern Vancouver Island in low elevations. In our area on Mt. Finlayson and Sooke Hills.

B. Introduced Species

Grass peavine - *Lathyrus sphaericus* (5-6). Upright annual plant with leaves having two leaflets and with bright orange flowers which are on long stalks from the axils of the leaves. Open grassy places. Mt. Tzuhalem, Duncan.

Upright chickweed - *Moenchia erecta* (5-6). Small annual with bluish green stems and opposite leaves, white flowers with four sepals and four petals. Open places. Uplands Park (MCM 1953).

Rue-leaved saxifrage - *Saxifraga tridactylites* (4). Small (usually less than 10cm tall) annual plant with three-toothed leaves, similar to wedge-leaved saxifrage (*S. ascendens*), but lacking the basal rosette. On rocks, along roads, sandy places. Fort Rodd Hill, Esquimalt Harbour, Mary Hill.

IV. Summer and fall plants

A. Native species

Slimleaf onion - *Allium amplexans* (6). Plant with heads of white or pinkish flowers. Open places, margins of bushes. Maple Bay (Glendinning 1918), Sooke Potholes (RC 1926), CFN 1924), Observatory Hill (WAN 1923, CFN 1924), Gonzales Hill (Martin 1924, CFN 1924), Foul Bay (Pemberton 1927), Mt. Douglas (JM 1887), Victoria Arm (JM 1893), Rocky Point (Keller & BWD 1965), Bentinck Island (RC 1930), Otter Point (Calder & MacKay 1961), Chatham (RC 1930), Bedford Road (MCM 1954, 1956), Malahat (S. Mitchell 1977), Mt. Newton (HR 1968), Old Baldy Mtn. (Calder & MacKay 1961), Gulf Islands, Deadman's Island, Barkeley Sound (WRC 1916), Nanaimo (JM 1887).

Indian-hemp dogbane - *Apocynum cannabinum* (6-8). Similar to spreading dogbane (*A. androsaemifolium*), but plants less branched and larger. Usually on sandy or gravelly lake shores. On Vancouver island known from Cowichan and Cameron Lakes. Victoria (WAN 1915).

White-topped aster - *Aster curtus* (7). Plants form large colonies of unbranched plants about 30-50 cm tall with numerous heads of whitish flowers at the top. In open Garry oak forests, on the forest margins, open grassy places. The plant is known from several locations in the Victoria area and extends on Vancouver Island to the "Cowichan district" (Ashby 1932), "Wellington" (WRC 1916) and Port Alberni (WVD 1983). Old collections from Foul Bay (JM 1912, 14) and Gonzales (GAH 1924, 25) possibly gone. Abundant on Trial Island, recently collected on the ridge above Cordova Bay (RTO 1985), on Observatory Hill, and hills above Sooke Road. Populations in Uplands Park (LJC 1972: west side of Uplands Park, 80 yards E from fire hydrant, under big oak in *Perideridia* patch, right side of old wagon patch) and on Mt. Douglas should be located again.

Rough-leaved aster - *Aster radulinus* (7-9). Stiff plant with several large heads of blue flowers. Dry open slopes, rocky places. Pike Lake (MCM 1969), Englishman River (WRC 1916), Wellington (WRC 1916). - In the late 1960's collected by STA off Dallas Road and in

Francis Park.

Dense spike-primrose - *Boisduvalia densiflora* (7-8). Plant resembling loosestrife (*Lythrum*), but flowers small and covered by large triangular bracts. Seasonally wet meadows. Goldstream (JRA 1896), Sidney (JM 1913: ditches, VELG 1927: Minnies Bluff), Swartz Bay (TRA 1958), North Saanich (BT & DB 1966: Curtis Road), Wallace Drive (BT & NC 1966), Saanichton (WAN 1931), Wellington and Little Qualicum (WRC 1916), Thetis Park (MCM 1958), Blenkinsop Lake (AOC), Langford (CFN 1922: opposite Mill Hill near railroad tracks), Rithets Woods (GAH 1951, CFN 1920), Swartz Bay (TRA 1958), Uplands (MCM 1953, 1956), Oak Bay (CFN 1919).

Brook spike-primrose - *Boisduvalia stricta* (7). Similar to the previous species, but the plant is more slender. Seasonally wet meadows. In Thetis Park growing together with the previous species. Thetis Park (MCM 1959, 1961; STA 1974).

Muhlenberg's centaury - *Centaureum muhlenbergii* (6). Small annual plant with opposite leaves and pink flowers. Seasonally wet meadows, upper zone of salt marshes. Uplands Park (MCM 1961), Chatham Island.

Large-flowered collomia - *Collomia grandiflora* (6-7). Tall plants (40-70 cm) with dense heads of large white flowers. Open places. Many past collections from the Victoria area. Also near Sooke Lake, Shawnigan Lake, on Saltspring Island, in Duncan, Nanaimo. Very few recent collections.

Austin's phantom orchid - *Eburophyton austiniae* (6). Leafless orchid with a terminal spike of large white flowers. Coniferous forests. Saltspring Island (A.E. Anderson 1975: Musgrave Point), S end of Tatlow Road (HR 1968).

Oregon ash - *Fraxinus latifolia* (7-9). Wet piaces, gullies, estuaries. In B.C. known from Mactush Creek estuary and Long Beach. Three localities from Victoria (Beacon Hill and Government House, St. Luke's churchyard - Lake Hill) where most probably planted.

Bractless hedge-hyssop - *Gratiola ebracteata* (6-8). Small plant with opposite leaves and small bluish flowers. Lake margins - sandy seasonally wet ground. Florence Lake (CFN 1896, AOC 1976), Esquimalt district (WAN 1931), Gonzales Hill (CFN 1922: in shallow swamp on the base, SE side of the hill), Oak Bay (JRA 1896), near Glinz Lake (JH & W. Armstrong), Rocky Point (BWD & Kellner 1965, AOC). Outside our area on Empress Mtn., Spider Lake, Mitlenatch Island, Somass River.

Gumweed - *Grindelia* sp. (6-9). In 1934 Steyermark monographed this genus and described several new species from Puget Sound and our area. Steyermark's treatment has not been accepted, but no one has worked on this genus since then. Seashore plants belong to *G. integrifolia* var. *macrophylla*, but the inland plants on dry hillsides are usually identified as *G. integrifolia* var. *integrifolia*, or as *G. squarrosa*. Blenkinsop Lake (GAH 1946: old railroad), Mt. Finlayson (GVC 1924, TCB 1981), Thetis Lake (CFN 1915), Observatory Hill (CFN 1916, 1923, RTO 1981), Saanich Arm (JRA 1901), Oak Bay beach (D.E. Newton 1928), near Shawnigan Lake (BT & DB 1966: Old Baldy Mtn.), Galiano Island (Wood 1975), Mayne Island (HJ 1975: Mt. Parke).

Sneezeweed - *Helenium autumnale* (6-7). Tall plant with a leafy stem and several large heads of yellow flowers. Open places. Uplands Park (LJC 1972), Lake Hill (Anon. 1948), Florence Lake (BWD, Fisk, & NC 1966).

Heterocodon - *Heterocodon rariflorum* (6-7). Small annual plant similar to Venus'-looking-glass (*Triodanis*), but flowers opposite the leaves. Seasonally wet depressions, seepages. Uplands Park (STA 1977), Christmas Hill (SM 1973). - Collected by AOC on Mt. Douglas, Observatory Hill, Rocky Point and Metchosin. Sooke Hills, Koksilah River.

Green-flowered alumroot - *Heuchera chlorantha* (6). Dense spikes of greenish flowers at the top of leafless stems; basal leaves dark green, oval. Open meadows. North Saanich (JRA 1899), Roberts Bay, Saanich (JM 1913), Cedar Hill Road (CFN 1920, Nation 1920), Pemberton Heights, Foul Bay district (RC 1925), Sidney (VELG 1929, Priestley 1929), Esquimalt (Cooke 1935), Highland district (Cooke 1935), Patricia Bay Highway (MCM 1960), end of Greig Road, Brentwood (Harris 1967), Nanoose district (Molyneux 1955), Alberni (Woods 1915, CFN 1915, WRC 1917). - Seldom collected recently.

Four-leaved mare's-tail - *Hippuris tetraphylla* (6-8). Dark green plant with 4-leaved whorls of leaves. Estuaries. Northern species of Arctic tundra, known from B.C. from Bella Coola and Victoria. Base of Mt. Douglas (CFN 1923). - Not collected since.

Pacific waterleaf - *Hydrophyllum tenuipes* (6-7). Rhizomatous plant with large dissected basal leaves and stems with terminal clusters of purplish flowers. Wet forests. Common in Goldstream Park, forest above the west shore of Sooke River.

Jaumea - *Jaumea carnosa* (7-9). Grayish green succulent plant forming mats and having solitary heads of yellow flowers. Salt marshes. Saanichton Spit (GAH 1924, WAN 1928, GAH 1950), Sidney Island (several collections), James Island (VELG 1933), Sidney (HJS 1964), North Saanich (MCM 1956: Resthaven Road), Victoria (WAN 1931).

Fern-leaved lomatium - *Lomatium dissectum* (6). Large plant with finely dissected leaves and umbels of purplish (in our area) flowers. Open forests, seashore meadows. Beacon Hill (JRA 1899, Armstrong & NC 1968), Esquimalt (JRA 1896), Oak Bay (JM 1913, GAH 1924), Thetis Lake (JRA 1904, CFN 1919), Clover Point (GAH 1925), Quadra Street (Sherwood 1927), Rithet's Swamp (GM 1959), Observatory Hill (J.R. Davidson 1920, JRA 1920, WAN 1931), Saanich (W.V. Hardy 1938), Gordon Head district (CFN 1921: possibly St. Margaret's Beach), South Saanich (GAH 1941), Alpha Islet (TCB 1985), Mt. Tzuhalem (AOC), Savary Island (Stanley 1980).

Spanish-clover - *Lotus purshianus* (6). Similar to small-flowered deervetch (*L. micranthus*), but leaves with mostly three leaflets. Open places, wet depressions. East Saanich district (WAN 1932), Chain Islands (CFN 1923), Oak Bay (CFN 1916, 1924), Telegraph Bay (GVC 1922), Albert Head (WAN 1930), Cowichan Lake ("W.J.G." 1930: Goat Island), Galiano Island (Wood 1975), Metchosin (WAN 1931), Bedford Road (MCM 1962: woods).

Dense-flowered lupine - *Lupinus densiflorus* (7-8). Robust annual plant with terminal raceme of large creamy flowers; flowers in distinct whorls. Clay banks above the ocean. Known from Holland Point and seen (but not collected again) on Trial Island (an edge of cultivated lawn close to the lighthouse and the service buildings). An old collection from Clover Point (VELG 1938; MCM 1954), Dallas Road (BWD 1965, 1971).

Prairie lupine - *Lupinus lepidus* (6-7). Small perennial lupine with leaves 2-5 cm in diameter, and numerous narrow leaflets. Deep blue flowers in the terminal raceme also in distinct whorls. Open places. Beacon Hill (JRA 1896, JM 1913, CFN 1920, VELG 1939, STA 1977), Observatory Hill (GAH 1960), Thetis Park (LJC 1970), Bear Hill (ASH 1966), Mt.

McDonald (CFN 1915: summit), Oak Bay (CFN 1920), Cattle Point (LJC 1970, M. Curran 1981). - Not collected recently.

Streambank lupine - *Lupinus rivularis* (6). Large plants similar to broad-leaved lupine (*L. latifolius*). Wet meadows, river banks. Sooke River (RC 1926; WBA 1926). - Not collected since.

Oregon manroot - *Marah oreganus* (6-8). Vine with broad, shallowly lobed leaves, tendrils, and racemes of greenish flowers, round fruits. Open places, waste places. Around Indian villages: Union Bay (= Pat Bay), Saanich (JRA 1898, 1899), Tsekum Indian Reserve, North Saanich (CFN 1917), Saanich (WBA 1917), Patricia Bay (Walker 1924), Pat Bay Indian Reserve (FK 1958), Pat Bay (NC 1963: close to sea), West Saanich Road (BT & DB 1966). - Probably introduced by Indians, no recent collections.

Needle-leaved navarretia - *Navarretia intertexta* (6). Similar to skunkweed (*N. squarrosa*), but finer, not foul smelling, flowers whitish with exerted stamens. Seasonally wet meadows. Near Victoria (JM 1893: on an old road), Swan Lake (JM 1908), Thetis Park (MCM 1961). Also off Crofton - Maple Bay Road past Duncan (AOC 1985).

Clustered broomrape - *Orobanche fasciculata* (6). Yellow flowers on long stalks growing in clusters. Open places. Observatory Hill (CFN 1920), Mt. Finlayson, Empress Mtn. - Seldom collected.

Rosy owl-clover - *Orthocarpus bracteosus* (6-8). Similar to Indian paintbrush, but smaller. Bracts purplish. Grassy places, open meadows. Old collections Oak Bay (JRA 1894: meadows), Blenkinsop Lake (JM 1908), Rollin's Farm (?) in Victoria (JM 1893: on a brickyard), Mt. Douglas (JM 1887), Sidney (JM 1913: ditches on 3rd Street; Goddard 1927), Elk Lake (WAN 1928, 1933), Patricia Bay Highway (MCM 1954). Now known only from Trial Island. - Does it still grow around Victoria?

Large round-leaved rein orchid - *Platanthera orbiculata* (7-8). Orchid with leafless stem, and large ovate basal leaves. Wet (coniferous) forests. Old collection from Thetis Lake (Toms 1929). From Vancouver Island collected also on Saratoga Beach (Forbes 1964). - Not collected since. Do not pick a plant for a herbarium specimen!

Tall woollyheads - *Psilocarphus elatior* (6-7). Similar to everlasting (*Gnaphalium*), flowers in globose heads. Seasonally wet open places. Victoria (JM 1887: Cloverdale), West Burnside Road, ditches (JM 1893), Sidney (JM 1913), roadside in Saanichton (JM 1913). - Recently known only from Uplands Park. Large population existed on UVIC grounds, at the spot where the University Centre now stands.

Slender woollyheads - *Psilocarphus tenellus* (7-8). Similar to the previous species, but smaller and decumbent. Open mineral soil, along roads, etc. in light forest margins. Seems to be common in the Highlands. Also in Metchosin (Mary Hill) and along Sooke Road. Old collections from old road to Deep Cove (JM 1914), Saanichton (JM 1913), at Col. Scotts, Miller Ave. (W.T. Tildesley 1949), Francis Park (FK 1963).

California-tea - *Psoralea physodes* (7). Large leguminous plant with trifoliolate leaves, flowers in clusters enclosed in bracts. Open places, forest margin. Known from Observatory Hill, Mt. Tzuhalem, off Nanaimo Lakes Road, Port Alberni; old collections from Portage Inlet (WAN 1930), Patricia Bay (GVC 1925) Brentwood (VELG 1930), Royal Oak (JM 1913: railway), Beaver Lake (VELG 1935: open grass fields), end of Meadowbrook

Road. (Armstrong & NC 1968), top of knoll W of Hillcrest (D.S. Smith 1944), Prospect Lake (MCM 1955, 1962), Francis Park (MCM 1962, FK 1963). Outside the area collections from Koksilah (JRA 1897) and Sahltan ("D.C.B." 1939) not confirmed recently.

Blue elder - *Sambucus cerulea* (7-9). Elder with clusters of bluish berries. Waste places. Victoria West (JRA), Saltspring Island (TRA 1956: St. Mary Lake).

Henderson's checker-mallow - *Sidalcea hendersonii* (6-8). Tall plant (up to 120 cm) with deeply lobed leaves and large pink flowers in terminal racemes. Estuaries, shrubs along the shore. Oak Bay (JRA 1896: damp meadows, CFN 1916), vicinity of Sidney (JM 1914), Estevan, V.I. (Smith 1933), Kanipsin Road, Cowichan Indian Reserve, Cowichan (Wagg 1947), N. Pender Island (HJ 1979), Port Alberni (Somass River estuary), north to Campbell River, Sayward. - From our area known only from Trial Island. No recent collections for the Victoria area.

Scouler's campion - *Silene scouleri* (7). Stiff plant with opposite leaves and racemes of greenish flowers; stems sticky in the inflorescence. Dry open places. Cedar Hill (CFN 1896, JRA 1897), Beacon Hill (JM 1913, GVC 1921), Bare Island (WBA 1915), Oak Bay (WBA 1916, WRC 1917, GAH 1924), Uplands (several collections such as MCM 1953: E of Oak Bay memorial), Burnside district (Cooke 1935), lot near Manyard Cove, 10 mile Pt. (ASH 1966), Trial Island, Mt. Tzuhalem. - No recent collections from the Victoria area.

Sierra wood fern - *Thelypteris nevadensis* (7-9). Looks like a small lady fern (*Athyrium filix-femina*), but leaves less dissected and finer. River banks; in Washington in the subalpine zone. Sooke Potholes (RC 1926, TRA 1964). - One mysterious collection came from Kennedy River along the Port Alberni-Tofino highway. Needs confirmation.

Poison-oak - *Toxicodendron diversilobum* (6-9). Shrub with trifoliolate leaves and lobed leaflets and with clusters of greenish flowers. Open places, forest margins. Saanich Arm (JRA 1896, 1917), Haslam Creek, Nanaimo (Parker 1935), Texada Island (Herod 1941, Planta 1946: Blubber Bay), Valdez Island (Sewell 1960: Shingle Point), Prospect Lake Road (FK 1963: Munro Farm; several other collections), Galiano Island (HJ 1982). - No recent collections in our area.

Graceful arrow-grass - *Triglochin concinnum* (7-9). Similar to seaside arrow-grass, but plants smaller with stems about as long as the basal leaves. Salt marshes, often with jaumea. Sidney (HJS 1964), Gulf Islands, Sooke (AOC).

Clasp-leaved Venus'-looking-glass - *Triodanis perfoliata* (7). Annual plant 20-30 cm tall, with broad toothed leaves clasping the stem. Flowers mostly cleistogamous (with reduced corolla, specialized for self-fertilization) in the axils of the leaves. Wet places in open areas, seepy places on rocks. Recently known from Gulf Islands and Sooke Hills. Old collections from Uplands (JM 1913), West Saanich Road (CFN 1914), Mt. Tolmie (GAH 1925), Shelbourne Street (Harvey 1930), Blenkinsop Road (Anon. 1950), Mt. Douglas (C.J. Bridgman 1930), Strongtide Island (GAH 1953). Outside Victoria old collections from Mitlenatch Island, Wellington. - Known from Sooke Hills, Gulf Islands, Koksilah River.

Giant chain fern - *Woodwardia fimbriata* (6-10). Really giant fern forming large clumps. Segments of the leaves look like saw teeth. Wet forests. Saanich Arm (CFN 1919), Lasqueti Island (Eastham 1939), near Willis Pt. (E.K. Lemon 1983), Texada Island. (WBA

1897, JM 1915). - No recent collections from Texada Island. The locality should be visited again.

B. Introduced species

Jimson-weed - *Datura innoxia* (9-10). Introduced to disturbed places. Victoria (Marshal 1974), Sidney (Bernard 1980). - No recent collections.

Brazilian waterweed - *Egeria* (= *Elodea*) *densa* (7-10). Similar to Canadian waterweed, but plants more robust, leaves 2-6 cm long, in whorls of 4-6, instead of three. Aquatic in lakes. Florence Lake, V.I. (A. & E. Davidson 1974).

Maxmilian's sunflower - *Helianthus maximillianii* (7-8). Like a small sunflower, up to 60 cm tall. Disturbed places. Outer wharf, Victoria (JM 1913).

Bristle clubrush - *Isolepis* (= *Scirpus*) *setacea* (6-7). Small clubrush similar to low clubrush. Wet meadows, depressions. Cadboro Bay (Malte 1921), Royal Oak (AOC 1976: Broadmead). - Is our locality identical to Malte's?

Apple-of-Peru - *Nicandra physalodes* (9-10). Similar to ground-cherry (*Physalis*). Waste places. Victoria (Gonnason 1965: waste grounds near dwellings).

Salpichroa - *Salpichroa rhomboidea* (9-10). Looks like a robust nightshade (*Solanum*). Waste places. Victoria (WBA 1916).

European sanicle - *Sanicula europaea* (6-8). Ground leaves dark green with five lobes, small heads of white flowers on top of stems in a compound umbel. Alluvial forest. Goldstream Park.

V. If you travel on or around Vancouver Island

Information is also needed on the following plants found outside our area:

Pink sand-verbena - *Abronia umbellata* (8-10). Similar to yellow sand-verbena (*A. latifolia*), but flowers are pink. Sand dunes along the ocean. Collected near Bamfield (Pachena Bay, mouth of "Bamfield Creek") and in Ahouse (CFN 1915; note: Ahouse was in Ahouse Bay, Vargas Island at that time).

Western wahoo, burning bush - *Euonymus occidentalis* (6-10). Alluvial forests. Single locality in B.C. near Courtenay.

Yellowbell fritillary - *Fritillaria pudica* (6). Small fritillary with yellow flowers. Interior species growing in sage brush. Mt. Arrowsmith (VELG 1935).

Floating water pennywort - *Hydrocotyle ranunculoides* (6-10). Low, creeping plant with small rounded leaves and inconspicuous flowers. Wet places. Above Nanaimo (JM 1914).

Bog bird's-foot trefoil - *Lotus pinnatus* (6). Flowers similar to seaside lotus (*L. formosissimus*), creamy or yellow with pink tinge. Open places, seepy ground. Mt. Benson (WRC 1915, 1918: "foothills of Mt. Benson, altitude 1000 ft. [=300 m], on wet spongy ground on rocks; only found in one small area").

Perennial evening primrose - *Oenothera perennis* (6-7). Small evening primrose with decumbent stem. Meadows, lake shores. Shawnigan Lake (MCM 1965: north shore, water's edge).

Pine broomrape - *Orobanche pinorum* (7-8). Robust plant with many yellowish flowers on

long stalks forming a loose panicle. Coniferous forests. Cowichan River (Glendinning 1914).

Oregon wood-sorrel - *Oxalis oregana* (6-8). Clover-like leaves and large white flowers. Wet alluvial forests on the west coast of Vancouver Island. Klanawa River, Bamfield, Queen Charlotte Islands.

Californian holly fern - *Polystichum californicum* (7-9). Similar to small plants of sword-fern, but leaves more finely dissected. Overhanging rocks. Texada Island (WBA 1897). Note: W.B. Anderson collected *Polystichum californicum* on Texada Island in the same month and year as *Woodwardia* and the collection numbers of the specimens are only two numbers apart.

Scouler's corydalis - *Corydalis scouleri* (5-6). Tall plant with divided leaves and long racemes of pink flowers. Alluvial forests. Nitinat River.

List of collectors' abbreviations:

Anon. - Anonymous UVIC, AOC - Adolf and Oldriska Ceska, ASH - A.S. Harrison, BT - B. Turner, BWD - B.W. Davies, CFN - C.F. Newcombe, DB - D. Barber, FK - F. King, GAH - G.A. Hardy, GM - G. Moyer, GVC - G.V. Copley, HJ - H. Janzsen, HJS - H.J. Scoggan, HR - H. Roemer, JH - J. Hett, JM - J. Macoun, JRA - J.R. Anderson, LJC - L.J. Clark, MCM - M.C. Melburn, NC - N. Chapman, RTA - R.T. Ashlee, RTO - R.T. Ogilvie, SM - S. - Mitchell, STA - S. & T. Armstrong, TCB - T.C. Brayshaw, WAN - W.A. Newcombe, WBA - W.B. Anderson, WRC - W.R. Carter, WvD - W. van Dieren, WVR - W.V. Redfern.

Herbaria consulted:

British Columbia Provincial Museum, University of Victoria; parts of the collections from: University of British Columbia, Department of Agriculture in Ottawa, Canadian National Museum in Ottawa, University of Washington in Seattle.

MORE ABOUT PLANT NAMES

by Art Guppy

The article in the Jan.-Feb. **Victoria Naturalist** by Kay Suttill entitled "Plant Names for People: Some B.C. Alpines" was most interesting. Perhaps I could add a few points. The connection of Thomas Drummond with *Dryas drummondii* is almost certainly correct. It was John Richardson who named the plant and it seems only reasonable that he would name it after the man with whom he had been associated in collecting northwestern plants.

Anemone drummondii is a more difficult problem. The fact that Thomas Drummond "must surely have noted it in its indigenous habitat long before James Francis Drummond was born" may be irrelevant because the species was named by Sereno Watson of Harvard University in 1880, half a century after Thomas Drummond was collecting in the northern Rockies. Furthermore, Watson described a type specimen collected in California. Nevertheless, if I were required to guess, I would side with Kay Suttill's choice of Thomas

Drummond. Watson would have been aware of Thomas Drummond's collecting activities, probably examined his specimens, and may well have wished to honour his memory.

There is doubt about the validity of associating the name of *Cassiope mertensiana* with F.C. Mertens. Apparently it is true that the genus *Mertensia* was named after Frans Carl Mertens (1764-1831), but judging from the information in Eric Hulthen's **Flora of Alaska**, it was another German, Carl Heinrich Mertens (1796-1830), whose name was given to the species of *Cassiope*. C.H. Mertens accompanied the Russian Count Friedrich P. Luetke on an expedition around the world in the corvette **Senjavin**. At Sitka, which was then Russian territory, Mertens made a collection of plants. These plants were later described by August Heinrich Gustav Bongard, professor of botany at St. Petersburg. One plant he named *Andromeda mertensiana*, presumably in honour of its collector. Later the species was placed in the genus *Cassiope* by George Don¹.

To another plant in the collection, our familiar **Partridgefoot** of alpine habitats, Bongard gave the name *Luetkea sibbaldioides* in honour of the commander of the expedition. However, the species had already been named *Saxifraga pectinata* by F.T. Pursh. Subsequently Gustav Kunze, recognizing that it was not a saxifrage but that the species name *pectinata* had precedence, gave the plant its present name of *Luetkea pectinata*.

From this sort of thing one could make a most interesting game of Trivial Pursuit.

1. Both Eric Hulthen and Stanley Welsh (each the author of a flora of Alaska) ascribe this name change to George Don's younger brother David Don, who was certainly the one who originated the name *Cassiope* for the genus, but other botanical references agree that for this one species David let George do it.

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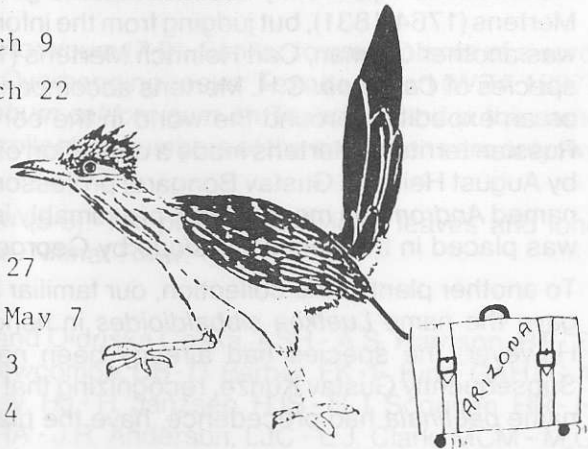
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For more information about Polar Bear Pass, see the January/March 1986 issue of **Nature Canada**.

SWIFTSURE TOURS LTD.

Early Spring Tour Program

Victoria - Gorge Waterways	March 9
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Whale Watching / Long Beach	March 28 - 31 & April 3 - 6
Sooke Basin	April 16
Southeastern Arizona	April 19 - 27
Southern California	April 27 - May 7
Flowers of the Islands	May 3
DeCourcy Island Cruise	May 4
Princess Louisa Inlet	May 7 - 11
Pelagic Birding	May 24, August 31, Sept. 27, Sept. 28



For further details on these and other trips, please call us at 388-4227 or drop by our office at 119-645 Fort Street, Victoria (Yarrow Building).

EURASIAN WIGEON COUNT

On February 1 five parties conducted a count of Eurasian Wigeon in the Victoria C.B.C. area. They found in all only 16 (11 male, 5 female), plus 3 hybrids (Eurasian crossed with American). This result is in striking contrast with the 28 (plus 3 hybrids) seen on the Christmas Bird Count.

FIELD TRIPS

Beaver, Elk Lakes, January 5, leader Dave Fraser. Highlights: 2 Pileated Woodpeckers, 1 Red-throated Loon, 3 Wood Ducks, 3 Canvasbacks, 80 Thayer's Gulls.

Winter Botany

by Katherine Sherman

For the dozen or so members who turned out for the "Winter Botany" trip to Beaver Lake on February 1, the first thing learnt was not to be put off by early threatening skies and depressing weather forecasts! Not only was there no rain, we even had some sun!

Although we may all *think* we know a distant Garry Oak from a Broad-leaved Maple, in winter certain of the leafless trees can present problems. Now we know that the thickly clustered buds at the ends of the branches indicate a Garry Oak. We identified three species of willow, learnt the reason for the upward curving branches of the Pacific Dogwood, and sorted out all the tangled, dead-looking shrubs along the trails. In fact there are so many individual characteristics for each species that there is no excuse for any wrong identification. You only have to (1) note the arrangement of the buds - opposite or alternate; (2) see whether the buds have stalks, as in Red Alder; (3) study the number and arrangement of the bud scales, missing in Cascara; (4) look at the bark; (5) cut across the twig and study the pith, five-angled in oaks and poplars, and cut lengthwise to see the gaps in the pith of the Indian Plum.

Our thanks to Dr. Chris Brayshaw for a very pleasant and instructive morning.

NOTICES

Christmas Bird Count

A report will be published in the May-June issue of the magazine.

Check List

Extra copies of the new check list of Victoria birds published in the January-February edition of the **VN** are available at the B.C. Provincial Museum gift shop, price \$1.50.

Index

An index for the **VN**, covering the years 1974-1984, has been prepared and will shortly be on sale, price \$2.00. We need to know how many to print, so orders for this should be placed with Harold Pollock, 386-4449.

National Geographic Society Field Guide to the Birds of North America. Copies of this publication will again be available soon; unfortunately, the price will be somewhat higher. Contact Lyndis Davis at 477-9952.

Bluebird Alert

Anyone sighting bluebirds on Vancouver Island this spring or summer is requested to call Charlie Trotter at 477-4365 or Harold Pollock at 386-4449 so that housing accommodation can be made available if needed.

Association Programming - Thetis Park Nature Sanctuary for March and April is as follows:

March 20, 1986, Newcombe Auditorium, 8:00 p.m. Dr. Al Funk, Micologist at the Forestry Laboratory, will present a slide program entitled "Foliar Fungi of the Western Forest", dealing with the diseases of the leaves of trees.

April 17, 1986, Newcombe Auditorium, 8:00 p.m. Mrs. Bertha McHaffie-Gow will present a nature slide show entitled "I'm a Millionaire".


Membership Totals as at December 31, 1985

(Totals as at December 31, 1984 are in brackets)

Regular	161 (145)	
Family	124 (126)	
Sustaining	7 (9)	
Golden Age	132 (141)	
Scholarships	12 (8)	
Honorary Life	7 (8)	
Junior	7 (13)	
Life	2 (2)	
TOTAL	452 (453)	members, or, assuming 2 per family,
	576 (579)	members
Free Non-member		
Subscribers	2 (1)	

E.L. Coffin, Membership

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BIRD OBSERVATIONS DECEMBER 1985

No.	Species	Date	Area Seen	Observer
1	White-breasted Nuthatch*	1	589 Wootton Road	Peggy Miller
1	White-throated Sparrow	5	Dallas Road near Douglas Street	Fred Bender
1	Northern Goshawk	7	Lochside/Martindale	Alan MacLeod
2	Brown-headed Cowbird	7	Island View Road	Dave Stirling
1	Gir Falcon	8	Victoria International Airport	Ron Satterfield
1	Northern Saw-whet Owl	14	1500 block Chambers Street	Rick West
1	Savannah Sparrow	14	McIntyre Road	Alan MacLeod
1	Western Screech-Owl	15	610 Foul Bay Road	Keith Taylor/Tim Zurowski
1	Orange-crowned Warbler	16	Swan Lake	Keith Taylor
1	Townsend's Solitaire	22	Mount Tolmie	Keith Taylor/Tim Zurowski
1	Harris' Sparrow**	23	9350 Cresswell Road	Barbara Begg
1	Whimbrel	25	Cove at 2955 Tudor Avenue	Keith Taylor
1	Barred Owl	25	Ten Mile Point area	Keith Taylor
1	Short-eared Owl***	25	Martindale Flats	Alan MacLeod
1	"Harlan's" Hawk	26	Swan Lake	Jeremy Tatum
30	Bonaparte's Gull	26	Esquimalt Lagoon	Vic Goodwill
1	Yellow-billed Loon	27	Cowichan Bay	Vic Goodwill
1	Kittlitz's Murrelet****	30	Ogden Point Docks	Chris Adam/Ron Satterfield
1	Mourning Dove	30	Central Saanich Road	Gladys & Jerry Anderson
25	Red Crossbill	30	Triangle Mtn.	Jeff Gaskin

* Appeared in mid-November; still present at end of January

** Still present at end of January

*** Watched as it skirmished with a Peregrine Falcon

**** Last sighting

BIRD OBSERVATIONS JANUARY 1986

No.	Species	Date	Area Seen	Observer
20	American Goldfinch	5	Ross Bay cemetery	Bryan Gates
1	Ireland Gull (1st winter)	11	Hartland Avenue Landfill	Keith Taylor
1	White-throated Sparrow	14	366 Ivor Road	Mike Bentley
1	Rough-legged Hawk	17	Island View/Martindale	Dick Dekker
2	Redhead	18	Beaver Lake	Hank Vander Pol
1	Rusty Blackbird	19	Courtland Avenue	Tim Zurowski
1	Water Pipit	23	McHugh Road	Mike Bentley
1	Harris' Sparrow	23	6520 Welch Road	Mike Bentley
4	"Black" Brant	25	Active Pass/Tsawwassen	Ron Satterfield
45	Cedar Waxwing	26	4718 W. Saanich Road	Guy Crowther
1	Townsend's Solitaire	28	1352 May Street	Joy & Ron Satterfield

PROGRAMME - MARCH/APRIL 1986

Please meet at the location specified for each trip. No cars can be left at Mayfair Lanes. Always take a lunch and dress according to the weather. **Always phone the Rare Bird Alert (382-5562)** the week before a trip that you anticipate taking in order to obtain full particulars or details of the changes that may have been made. Changes cannot always be avoided. On V.N.H.S. field trips participants usually pool vehicles to cut down on parking problems and to reduce costs. A considerable fuel bill can be run up on a trip - vehicles usually consume 5-10c/km. The Board suggest that participants share the fuel costs with the driver.

Saturday, March 8

Birding field trip, leader Fritz Karger: details to be announced on Rare Bird Alert.

Tuesday, March 11

Annual General Meeting, Newcombe Auditorium, 8:00 p.m. Coffee and tea will be served. Programme Speaker: Dr. Jim Jowsey, Professional Agrologist from Regina, Sask. Topic: "Wildflowers Across the Prairies".

Saturday, March 22

Witty's Lagoon - Botany and Birding get together. Meet Mayfair Lanes 9:00 a.m. or Witty's Lagoon Nature Centre 9:30 a.m. Coffee and tea will be served by CRD Naturalist.

Wednesday, March 26

Birders' Night, 7:30 p.m., Arbutus Junior School, Edgelow Street.

Saturday, March 29

Birding at Esquimalt Lagoon, leader Lyndis Davis. Meet at Helmcken Park-and-Ride, junction of Helmcken Road and Highway 1, at 9 a.m., or at the bridge at the north-west end of the lagoon at 9:15 a.m.

Tuesday, April 8

General Meeting, Newcombe Auditorium, 8:00 p.m. Programme details to be announced on the The Rare Bird Alert.

Saturday, April 19

"Pink Lilies - Sutton Creek Wildflower Reserve", leader Mr. Leon Pavlick, Assistant Curator of Botany, B.C. Provincial Museum. Please phone Bird Alert prior to April 12 in case of change of date. Meet at Mayfair Lanes at 9:00 a.m.

Sunday, April 20

Birding on the Gulf Islands Ferry. Details to be announced on the Rare Bird Alert.

Wednesday, April 23

Birders' Night, 7:30 p.m., Arbutus Junior School, Edgelow Street.

Saturday, April 26

"Spring Flowers on Mill Hill". Leader Dr. Adolf Ceska, Botanist, B.C. Provincial Museum. Meet at Mayfair Lanes at 9:00 a.m. or Mill Hill 9:30 a.m.

Sunday, April 27

Birding at Witty's Lagoon. Meet at Helmcken Park-and-Ride at 8:30 a.m., or at Witty's Lagoon parking lot at 9 a.m.

Tuesday, 29 April

Birding at Sidney Island, leader Mike Shepard. Meet behind Sidney Hotel at 10 a.m. Cost \$18.00 per head.

SPECIAL PUBLIC PROGRAMMES**VNHS Joint Programme with Newcombe Auditorium**

Introduction to Bird Identification. Noon: Thursdays 12:15-12:45

Thursday, March 20 - Shore Birds & Ducks

Leaders: Harold Hosford and VNHS Birders. Meet 12:15 Clover Point.

Thursday, March 27 - Bush and Beach Birds

Leaders: Harold Hosford and VNHS Birders. Meet 12:15 Mile 0 marker, Beacon Hill Park.

Thursday, April 3 - Song Birds

Leaders: Ann Knowles and VNHS Birders. Meet 12:15 corner of Dallas and Cook, Beacon Hill Park.

Thursday, April 10 - Gulls and Shore Birds

Leaders: Ann Knowles and VNHS Birders. Meet 12:15 Ogden Point, Breakwater parking lot.

VNHS Spring Public Programme

Starting at the end of April, a short series of walks has been arranged to introduce the public to some common birds and to other aspects of nature in our area. These will be led by members of the VNHS. For details, see public announcements, or phone Fritz Karger, 478-5443.

JUNIOR PROGRAMME

For more information phone Bianca Message in the evening at 595-4254.

Saturday, March 8

Hike to McKenzie Bight. Meet at Swan Lake at 9:30 a.m. or at Durrance Lake parking lot at 10:00 a.m.

Saturday, March 22 - Little People of the Woods (insectrs and other invertebrates)

Meet at Swan Lake at 9:30 a.m. or at Francis Freeman King Park, 10:00 a.m.

Saturday, April 5 - What do you do when you get lost in the woods?

Meet at Swan Lake at 9:30 a.m. or at Francis Freeman King Park 10:00.

Saturday, April 19 - Polluton: What is it all about?

Meet at Swan Lake Nature House 10:00 a.m.