Distribution

F. p. pealei occurs on the central coast mainland, northern part of Vancouver Island and all of Queen Charlotte Islands/Haida Gwaii. The subspecies *anatum* is known to migrate south. Subspecies *F. p. pealei* juveniles are known to migrate south to California; however, once they become adults they are mainly resident year-round in B.C.

Habitat

Nest site selection is closely tied with optimal foraging habitat. *F. p. pealei* usually nests adjacent to seabird colonies, as colonial nesting seabirds, such as ancient murrelets, are their primary food source. Other seabirds are also taken while on the wing.



Nest of a peregrine falcon



"VANCOUVER ISLAND" WHITE-TAILED PTARMIGAN Lagopus leucurus saxatilis

Description

Adults: Chubby, round, grouse-sized birds. Summer plumage is a cryptic mottled-grey brown head, chest and back. Wings, belly and tail white. Very small red patch above eye. In winter they are all white. Black bill and black eyes. Distinct from similar species because the tail flaps are always white.

Height: 30-33 cm

Similar species: The rock ptarmigan is similar in size and shape to the white-tailed ptarmigan, but the tail margins are distinctly black and there is a red patch above the eyes.

The willow ptarmigan is slightly larger than the white-tailed ptarmigan, with a reddish head and distinctly black tail margins.

Voice

Soft low clucks and hoots, and highpitched cackles. In breeding season males give a "flight scream" consisting of *ku-ku-KIII-KIIER* while in the air, and *duk-duk-DAAK-duk-duk* after landing.

Field signs

Nests: Always nest on the ground and within a hollow; located in rocky exposed areas or under trees and shrubs. Hollow is lined with feathers, leaves, grasses and other alpine vegetation. Warm buff eggs (4-7) with small, dark-brown spotting.



White-tailed ptarmigan in summer plumage



White-tailed ptarmigan in winter plumage



M. Stini

Rock ptarmigan



Willow ptarmigan

.T. Jones

Distribution

Endemic to Vancouver Island.

Habitat

Summer: At or above the timberline in alpine, subalpine and upper montane areas. Moist and rocky alpine meadows, tree islands and conifers with krummholz.

Trees (4 m): subalpine fir and mountain hemlock. Shrubs: pink mountain heather and white mountain heather.

Winter: When plumage is changing, birds occupy snowfields, which provide camouflage and forage

vegetation. Short elevational migrations to habitat below the treeline and into or at the edge of forested areas. Cedar and hemlock forests, alpine bowls, clearcuts, cliffs, rocky outcrops and unvegetated areas are all used as winter habitat. Forage on vegetation such as stems, buds, seeds, leaves and fruits from sedges, grasses, vaccinium species, willows and flowering plants.

Elevations: summer 1200-2200 m, winter 800-1900 m *Structural stages:* mainly 1 and 2



A COMPARISON OF OWLS

Small owls (17-23 cm tall)







Pygmy-Owl

Saw-whet owl

Screech owl

Medium owls (>23-53 cm tall)



Short-eared owl



Long-eared owl

Barn owl

A COMPARISON OF OWLS

Large owls (>43 cm tall)





Great horned owl

Barred owl



Great gray owl



Spotted owl

"VANCOUVER ISLAND" NORTHERN PYGMY-OWL Glaucidium gnoma swarthi

Description

Adults: Very small "earless" owls with barred tail extending beyond the wing tips and held at perky angle. Black patches on nape mimicking eyes; blackish-streaked flanks. Spots on crown, and yellow eyes.

Length: 15.5-18.0 cm

Similar species: Saw-whet owl with large head, stubby tail and blotchy streaks.

Voice

Series (60-80/min) of single or double "toot" notes.

Field signs

Diurnal flier; undulating and flight with an audible humming of wings that is slightly noisier than that of most owls. Large trees (>60 cm dbh) with cavities.

Distribution

Endemic to Vancouver Island and the Gulf Islands.

Habitat

Inhabits a variety of forest stands. Secondary cavity-nester; uses tree cavities or woodpecker holes in stands with large trees, near the



"Vancouver Island" northern pygmy-owl

edge of forest openings. Nests in stands or in wildlife tree patches within harvested areas. Forages in a variety of forest types, often at forest edge, along roads and in disturbed sites. Feeds on small mammals, birds, reptiles and insects; often kills prey larger than itself. *Elevations:* 50 to <1700 m *Structural stages:* 3-7 (foraging), 5-7 (foraging and nesting)



Habitat of "Vancouver Island" northern pygmy-owl



"QUEEN CHARLOTTE" NORTHERN SAW-WHET OWL Aegolius acadicus brooksi

Description

Adults: Small "earless" reddish owls with streaks on chest and stubby barred tail. Narrow black and white half-collar around back of neck. Yellow eyes.

Juveniles: dark-brown in summer, with white "eyebrows."

Sexes: Alike.

Length: 17.5-21 cm

Field signs

Large trees (\geq 80 cm dbh) with cavities.

Voice

Series of short whistles.

Distribution

Non-migratory resident of the Queen Charlotte Islands.



"Queen Charlotte" northern saw-whet owl

Habitat

Nests in late seral stages; forages (small mammals, birds, insects and intertidal invertebrates) at forest edges and in openings. Secondary cavity-nester using tree cavities or woodpecker holes.

Elevations: 0-1220 m *Structural stages*: 3 (foraging), 6-7 (nesting)



SHORT-EARED OWL Asio flammeus

Description

Adults: Crow-sized, tawny-brown owls with dark areas (like sunglasses) surrounding yellow eyes. A very round facial disc and tawny brown colouration are its most noticeable characteristics. "Ears" are hard to see. Boldly streaked chest; light belly without horizontal barring. Noticeable black patch near bend ("wrist") of underwings; pale buffy patch on upperwings. Usually observed before dark, in open areas such as fields, sloughs and marshes. *Length:* 32-43 cm; *Wingspan:* 30 cm

Voice

Usually silent. On nesting grounds, a variety of high-pitched barks, hisses and squeals.

Field signs

Irregular floppy (moth-like) and low flight. Short-eared owls construct nests, although very rudimentary ones. Females make a nest by lining a scrape in the ground with a few leaves, feathers or bits of grass.

Distribution

South mainland coast and southeastern Vancouver Island.



Short-eared owl

Habitat

The short-eared owl prefers tall grass (30-50 cm) and open country such as grassland, grassy or bushy meadows.



The short-eared owl frequents open areas.

marshlands, sloughs, beaches, sedge fields and previously forested areas that have been cleared. Suitable winter habitat (marine foreshores, grasslands, fallow fields, etc.) with a sufficient prey base and adequate roost sites may be a limiting factor.

Winter roost sites must be within close proximity to hunting areas, and provide protection against harsh weather and predators.

Structural stages: 2, 3 or old-growth field



E.T. Jones

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SPOTTED OWL Strix occidentalis

Description

Adults: Large owls with dark eyes, and white spots on head, chest and belly.

Sexes: Alike; however, females slightly larger than males.

Similar species: Barred owl with barring on chest, streaking on belly.

Voice

Series of four dog-like barking hoots most commonly used vocalization. Call of females notably higher pitched than males. Near nest sites, females will emit several high-pitched vocalizations referred to as 'co-weep' calls.

Distribution

Southwest mainland of B.C., extending as far north as Carpenter Lake and as far east as Manning Park.

Habitat

Nests: In large (>30 cm dbh, but preferably >50 cm dbh) trees in oldgrowth stands within tree cavities or abandoned hawk or crow nests. Trees with broken tops, tree cavities resulting from heart rot, and platform nests built by other species are important habitat features.



Spotted owl





J. Hobu

Barred owl

Spotted owl with prey

Forages and roosts: In old-growth or mixed-aged stands of mature and oldgrowth trees. Late seral stands used by owls are \geq 2 canopy layers, multispecies, and have >50% canopy closure. Spotted owls feed primarily on small mammals: northern flying squirrels, woodrats, voles and mice.

Structural stages: 6, 7



"QUEEN CHARLOTTE" HAIRY WOODPECKER Picoides villosus picoideus

Description

Adults: Robin-sized birds. Males have a distinct red nape; females have a black nape. Underparts generally brownish; upperparts black with barred pale area in centre of back. Wings are black with white spotting above, white stripes below. Tail feathers are black with barred outer feathers. Bill almost as long as the head.

Length: 16-25 cm

Similar species: Can be confused with downy woodpecker, which has a substantially smaller body (15 cm) and smaller bill (half the length of head).

Voice

Very loud, sharp *peeek* call. Downy woodpecker call is noticeably quieter (but still loud) with a higher pitched *pik* call.

Field signs

Excavate cavities in live or dead coniferous or deciduous trees,



"Queen Charlotte" hairy woodpecker

1 m or more off the ground (mostly between 2-6 m). Males share brooding duties at night; females brood during day.

Distribution

Endemic to the Queen Charlotte Islands.

Habitat

Coniferous, deciduous or mixedwood stands with mature to old-growth structural stage. Often found adjacent to or at the edges of riparian areas, burns and meadows.

Elevations: 0-1830 m

Structural stages: variable, but mostly 6 and 7



LEWIS'S WOODPECKER Melanerpes lewis

Description

Adults: When in flight, appear crowlike because of their large size and how they beat their wings. Head with a red face patch and grey collar; glossy greenish-black back and wings; grevish-rose abdomen, flanks and sides. Black eyes.

Sexes: Similar.

Juveniles: Lack red face patch and grey collar.

Height: 26-29 cm Wingspan: 50 cm

Similar species: A very distinct species, not likely confused with other birds.

Voice

Usually silent or a harsh *churrr* or chee-ur call.

Field signs

Nests: Excavates a cavity (up to 30 m above ground) or uses abandoned woodpecker holes, natural cavities or hollows in wildlife trees. Nests >1000 m elevation, usually in burns.

Distribution

Historically found in coast forest region.



Lewis's woodpecker

Habitat

Nests and roosts in late seral stands with snags. Forages in open mature mixed



E.T. Jones

species forests, riparian areas and burned forests. High shrub density and diverse understory provide ideal habitat for forage species (e.g., flying insects) and seasonal nuts, seeds and berries.

Canopy species composition includes ponderosa pine, lodgepole pine, Douglas-fir, spruce, black cottonwood.

Elevations: 250-1160 m

Structural Stages: 2-5 (foraging), 3 (when insects are abundant). 6-7 (nesting and roosting)



YELLOW-BREASTED CHAT Icteria virens

Description

Adults: Small, chubby migratory birds with thick black bill, fairly long tail, dark legs, and characteristic bright yellow throat and breast. Olive-green underparts, whitish abdomen and undertail, and black facemask bordered by distinct white "spectacles" leading from the bill and arching over the eye.

Sexes: Similar.

Length: 17-19 cm

Similar species: Unlikely to be confused with other birds due to its yellow throat and breast, and white "spectacles."

Voice

Very elusive bird. Its song is often the only sign of its presence in an area, and it often sings at night. Considered unmusical with its loud sounds of repeated short, harsh whistles.



Yellow-breasted chat

Field signs

Nests: (diameter: 12.7 cm; height: 6.6 cm) composed of plant stems, straw, shredded leaves and bark; inside lined with grasses. Nest location concealed within brushy dense shrubs, low trees and thickets, 0.08-10 m from edges, 0.4-1.8 m above ground.

Eggs: (3-6) oval, smooth creamy-white shell with purplish-brown spots (2.2 x 1.6 cm).



Distribution

Recent unconfirmed reports suggest a small breeding population has become established near Mission and Chilliwack.

Habitat

Nesting and forage habitats: Include dense shrubbery (shrub patch size: 9-195 m²; shrub height: 3.5 m) within all types of riparian habitats, brushy hillsides and shrubbery adjacent or within boulder or talus slopes, ditches or seepage areas, forest edges and forest scrub. If trees are present in the nest or forage patch, their height is typically <6 m. Canopy species composition includes cottonwood, water birch, rose, willow, hawthorn, cherry, aspen and snowberry. Density of thicket is most important.

Forage species: Insects and berries within the foliage of these shrub and herb thickets. Not usually found near areas frequented by cattle, or areas with continuous noise (e.g., highway traffic).

Elevations: 0-70 m *Structural stages:* 3

Mammals

English Name	Scientific Name	Forest District	Biogeoclimatic Unit
"Vancouver Island" common water shrew	Sorex palustris brooksi	Campbell River North Island South Island	CDFmm CWH: xm1, xm2, vm1, vm2, vh1, mm1, mm2, dm MHmm1
Pacific water shrew	Sorex bendirii	Chilliwack Squamish	CDFmm CWH: xm1, dm, vm1, vm2
Keen's long-eared myotis	Myotis keenii	Campbell River Chilliwack North Coast North Island Queen Charlottes South Island Sunshine Coast	CDFmmCDFmm CWH: wm1, wm2, vh1, vh2, xm1, xm2, dm, mm1, mm2, wm, vm1, vm2 MH: mm1, wh1, wh2
Townsend's mole	Scapanus townsendii	Chilliwack	CWH
Vancouver Island marmot	Marmota vancouverensis	Campbell River South Island	AT CWHmm2 MH: mm1, mmp1
"Queen Charlotte" ermine	Mustela erminea haidarum	Queen Charlottes	CWH
Fisher	Martes pennanti	Campbell River North Coast North Island Squamish Sunshine Coast	CWH, ICH, IDF, MH, SBS
Wolverine	Gulo gulo	Campbell River North Coast North Island Squamish Sunshine Coast	AT, CDF, CWH, ESSF, ICH, IDF, MH, SBS

Mammals

English Name	Scientific Name	Forest District	Biogeoclimatic Unit
Badger	Taxidea taxus jeffersonii	Chilliwack	AT ICH: dw, mk1, mk2, mk3, mw1, mw2, xw IDF: dk1, dk2, dk3, dm1, dm2, mw, mw1, mw2, un, xh1, xh2, xm, xw, xw2 SBS: dw1, dw2, mc1, mm, un ESSF: dc1, dc2, dcp, dk, dkp, mw, mwp, wc1, wc4, wcp, wm, wmp, xc, xcp
Grizzly bear	Ursus arctos	Campbell River Chilliwack North Coast North Island Squamish Sunshine Coast	AT, CDF, CWH, ESSF, ICH, IDF, MH, SBS

CHARACTERISTICS OF MAMMALS



I: Incisors; C: Canines; P: Premolars; M: Molars; U: Unicuspids



"VANCOUVER ISLAND" COMMON WATER SHREW Sorex palustris brooksi

Description

Large shrew with blackish-grey to black dorsal fur, smoky-grey or brown belly, bicoloured tail, and a long, conspicuous fringe of hairs (1.5 mm) on whitish feet. Skull has a short, ventrally straight rostrum and 32 teeth. Five upper unicuspid teeth, with the third distinctively smaller than the fourth. First upper incisor has indistinct, medial tine.

Total length: 133-179 mm *Tail:* 64-76 mm *Hind foot:* 16-28 mm *Weight:* 7.5-16.4 g

Similar species: Similar to the Pacific water shrew; however, their ranges do not overlap.

Distribution

On Vancouver Island, from Victoria to Port Hardy, as far inland as Robertson Creek and the Lowry Lake area (near Port Alberni), and along the west coast at Lost Shoe Creek near Ucluelet.

Habitat

This semi-aquatic insectivore inhabits riparian vegetation along slow- and swift-flowing streams and lakes.



Common water shrew

Streams vary in width (1-26 m), and may be permanent or intermittent.



"Vancouver Island" common water shrew habitat

Water shrews swim well, and air bubbles trapped beneath the feet provide enough buoyancy to enable them to run on the surface of the water for several seconds. Habitat features include vegetated riparian habitats with well-developed litter layer, decomposed coarse woody debris and an abundance of rocks and boulders. Feed on terrestrial and aquatic invertebrates, slugs and snails.

Elevations: records at 30-558 m, possibly up to 2900 m *Structural stages:* all



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PACIFIC WATER SHREW Sorex bendirii

Description

Largest shrew of the Sorex genus in North America. Fur velvet-like, dark brown to black; summer pelage more brownish than winter coat. Unicoloured dark brown tail. Skull large with ventrally curved rostrum, 32 teeth. Five unicuspid teeth; the third is distinctively smaller in size than the fourth. The upper unicuspids have a pigmented ridge that extends to the cingulum. The upper incisor has a large medial tine that is positioned within the pigmented region of the face of the incisor. Brown feet. Hind feet usually with a stiff fringe of hairs about 1 mm long (adaptation for swimming) bordering toes.

During reproduction, males have a pungent odor originating from scent glands located on the flanks.

Total length: 137-176 mm *Tail:* 64-81 mm *Hind foot:* 16-21 mm *Weight:* 10-20 g *Similar species:* Similar to the "Vancouver Island" common water shrew; however, their ranges do not overlap.

Distribution

Restricted to the extreme southwest corner of B.C., in the Lower Fraser



Pacific water shrew

Valley. It has been observed as far east as the Chilliwack River and Agassiz, and north to the north shore of Burrard Inlet.

Habitat

This semi-aquatic insectivore is found in heavily wooded areas along slowmoving creeks and wetlands, usually <50 m from the edge of water. Pacific water shrews swim well, and air bubbles trapped beneath the feet provide enough buoyancy to enable them to run on the surface of the water for up to 5 seconds. Important habitat features include slow-moving waters, forested riparian habitats with welldeveloped litter layer and decomposed coarse woody debris. Prey include terrestrial and aquatic invertebrates, including slugs and snails.

Elevations: <850 m *Structural stages:* 5, 6, 7



KEEN'S LONG-EARED MYOTIS Myotis keenii

Description

Dull olive to rich, glossy brown dorsal fur with darker indistinct spots on the back of the shoulder; underside paler. Long ears extending about 4 mm beyond the tip of the nose when pressed forward; long, narrow and pointed tragus. Ears and wing membranes dark brown. Fringe of tiny hairs on the outside edge of tail membrane visible with hand lens. Calcar with indistinct keel. Skull with steep forehead; rostrum short and rising abruptly. Distance from the last upper premolar to the last upper molar is less than 4.2 mm

Total length: 63-94 mm *Tail:* 34-40 mm *Hind foot:* 8-10 mm *Ear:* 16-20 mm *Tragus:* 9-12 mm *Wingspan:* 209-262 mm *Weight:* 4.0-5.9 g

Similar species: Western long-eared myotis (total length: 92-103 mm) with ears extending 5 mm or more beyond the tip of the nose when pressed forward. Tragus long and slender with small lobe at its base. Ears and flight membranes are nearly black. Skull with gradually sloping forehead. Positive identification can only be made from cranial characterstics (i.e., the distance from the last upper premolar to the last upper molar is > 4.2 mm in the western long-eared myotis). The western long-eared myotis does not occur on the Queen Charlotte Islands.



Keen's long-eared myotis

Distribution

Coastal mainland as far north as the Stikine River, on the Queen Charlotte Islands and on Vancouver Island.



Keen's long-eared myotis (left) and western long-eared myotis. Body size cannot be used to differentiate one species from the other.

Habitat

Cool, wet coastal montane forests and karst features. The best studied maternity colony is located among geothermally heated boulders and crevices on Hotspring Island, Gwaii Haanas National Park. Its small size, low wing-loading ratio and very low intensity echolocation call makes the Keen's long-eared myotis well adapted for flying and foraging on arthropods within structurally complex late seral stands. Important habitat features include tree cavities (decay class 2 or greater), bark (on trees with decay class 4 or greater) and rock crevices, and caves more than 100 m in length and above 400 m elevation, with stable 2.4-4°C temperatures and 100% humidity. In general, *Myotis* show high site fidelity to maternity roost and hibernation sites.

Elevations: 0-1100 m *Structural stages:* 6, 7



TOWNSEND'S MOLE Scapanus townsendii

Description

Largest North American mole. Velvet-like dark grey to black fur, with pronounced sheen. Stocky, cylindrical body. Flat, broad front feet with five strong, straight claws for digging; whitish and almost hairless palms facing outwards. Both conical snout and short hairless tail are pink. Tiny blue eyes hidden by fur. No ears. Forty-four teeth; unicuspids crowded and uneven.

Length: 17.9-23.7 cm *Tail:* 3.5-5.5 cm *Weight:* males 142 g; females 119 g

Similar species: Other western moles are smaller.

Field signs

Constructs extensive tunnel systems (diameter: 5.2 cm) with mounds (18 x 44 cm) significantly larger than those of coast moles (diameter: 3.6 cm; mound: 11 x 30 cm).

Distribution

Restricted to small area along international border near Huntingdon in the lower Fraser Valley.

Habitat

Inhabits manured pastures, hayfields, moist meadows, lowlands, fir forests,



Townsend's mole



The mole has strong claws for digging

cultivated fields and open brushland where soil is deep and fairly loose with little gravel content, in the dry subzone of the coastal western hemlock biogeoclimatic zone. Townsend's moles spend much of their lives burrowing through the soil. They can burrow beneath highways and buildings, and swim across rivers and canals. Earthworms are their primary food source and comprise over 70% of their diet. They require a daily intake of food roughly equal to 70% of their body weight.

Structural stages: 2, 3



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VANCOUVER ISLAND MARMOT Marmota vancouverensis

Description

Lustrous chocolate-brown coat, fading to deep ebony to light walnut through summer (due to sunbathing), with white spotting on nose, chin, forehead and abdomen. Adults with mottled appearance in July (due to molt), distinguishing them from pups and yearlings. Incisors pale yellowish-white. Bushy tail.

Total length: 63-72 cm

Tail: 19-30 cm *Hind foot:* 9-10.5 cm *Weight:* 2.9-6.4 kg. Marmots lose about one-third of their body mass during winter hibernation.

Similar species: Not likely to be confused with any other kind of mammal on Vancouver Island.

Voice

Most frequent call is a high-pitched whistle, which warns colony members of danger. Hence local nickname, "whistle pig."

Field signs

Scats: 3-6 cm long, 1-1.5 cm wide, pinched at both ends, green when fresh, often in large numbers at latrines.

Burrow: Entrances (30-45 cm diameter) underneath a boulder or tree root. Those used as hibernation or birth sites usually have some dirt mounded on the low side of the entrance.



Vancouver Island marmot

Hibernacula: Can be identified either by grass and mud "plugs" found at tunnel entrances in late autumn, or by emergence tunnels through the snowpack in May or early June. *Lounging spots:* Include boulders, logs and stumps, which are identified by mud stains.

Distribution

Restricted to south-central Vancouver Island at the headwaters of the adjacent drainages of the Nanaimo, Chemainus, Nitinat, Cameron and Cowichan rivers. One small isolated colony occurs on Mount Washington in east-central Vancouver Island.

Habitat

Vancouver Island marmots live in colonies, in alpine and upper subalpine meadows that provide a variety of grasses and forbs to eat, deep colluvial soil for burrow construction (including hibernacula underneath the frost layer) and suitable lookout spots. Burrows provide protection against inclement weather and predators, and are reused year after year.

Habitat features include grasses and forbs, colluvial soil, boulders, logs and stumps.

Elevations: 800-1600 m (natural colonies), 700-1200 m (clearcuts)

Aspect: mostly south- to west-facing slopes.

Structural stages: 2, 3



Habitat of the Vancouver Island marmot



"QUEEN CHARLOTTE" ERMINE Mustela erminea haidarum

Description

Also known as "Queen Charlotte" short-tailed weasel. Small, slender, short-legged carnivore with long, almost cylindral body. Dark brown with white underparts and feet in summer. White in winter. Always with a black tip on tail. Head small with inconspicuous rounded ears. Strong musky odor. The subspecies *haidarum* is distinguished by having two-thirds of underside of tail coloured like underparts. Males are larger than females.

Total length: males 27.5-29.0 cm; females 25.0-25.2 cm

Tail: males 6.5-7.5 cm; females 6.1-6.3 cm

Field signs

Scats: 0.3-0.5 diameter, 2-3 cm long, twisted, dark brown or black. Found on rocks or prominent objects.

Tracks: 2-2 pattern is common. Short strides may be connected by drag



Radio-collared ermine

marks; the resulting pattern is two dots, a dash and two dots.

Distribution

Found only in the Queen Charlotte Islands.

Habitat

2-2 pattern G. Proub

32 cm

This subspecies uses a pattern variety of habitats, particularly at low elevations near ocean, rivers, creeks and estuaries. Habitat features include coarse woody debris, sea-beach debris, rock piles.

Structural stages: 1-7



FISHER Martes pennanti

Description

Long and slender body. Dense, dark brown to black fur coat with considerable grizzling patterns around the shoulders and back. Pointed face, rounded ears, strong short legs, and bushy tail.

Head and body: 51-63 cm *Tail*: 33-38 cm *Weight*: males 2.7-5.4 kg; females 1.4-3.2 kg

Similar species: American marten is 2-3 times smaller. Prominent ears. Yellowish-brown to dark brown pelage, and pale buff patch on throat and breast.

Field signs

Scats: Dark in colour and twisted. *Tracks:* Front and rear feet have five digits, with a C-shaped palm pad curving away from the toes.



Trail patterns:

The fisher has three basic trail patterns.



Fisher



American marten



Scat



Walking, 2-2 and 3-4 trail patterns

2-2 pattern

G. Proulx

Proulx

Distribution

Although present throughout B.C., fishers are rare in coastal ecosystems and are likely found in habitats resembling boreal forests.

Habitat

Landscapes with young and mature forests interspersed with early seral stages. Late seral forests usually have >30% canopy closure and >20m²/ha basal area in mature trees. Important habitat features include large coarse woody debris (\geq 28 cm in diameter), snags (\geq 50 cm dbh for denning) and \geq 20% shrub cover, particularly in riparian and dense wetland forests.

Elevations: ≤ 1000 m

Structural stages: 5, 6, and 7 in winter. All stages during other seasons.



WOLVERINE Gulo gulo

Description

The wolverine looks like a small bear with a bushy tail. It has a broad head, short neck, short legs and large feet. Fur varies from dark brown to almost black, with a lighter facial mask and throat patch, and two yellowish stripes extending from the shoulders to the rump and merging into the tail. The fur is short on the head, but longer posteriorly.

Head and body: 65-107 cm *Tail*: 17-26 cm *Weight*: males 11-16 kg; females 6.5-15 kg

Similar species: Fisher is 2-3 times smaller. Pelage without yellowish stripes.

Field signs

Tracks: A dog-like track with five digits and a palm pad curved across the front. The thumbprint does not always register. The front heel pad usually imprints as an oblong dot behind the palm pad; the rear heel pad does not leave a marking. Wolverine feet are extremely furry, and hair marks may be present in clear tracks. Some wolverine tracks are large and may be mistaken for wolf or bear tracks; confirmation of species is through an examination of gaits and strides.





Wolverine

Trail patterns: Wolverine trails are similar to those of fishers, and they tend to zigzag. In deep snow, wolverines sink considerably and belly drag marks are noticeable.



Scats: Dark in colour and twisted, sometimes measuring more than 12 cm long. Tapered at both ends, often with bones and hair.



5 in (12.5 cm)

Distribution

Wolverines are widely distributed throughout much of B.C. Wolverine populations do not occur on the Queen Charlotte Islands. Given the lack of recent records, their density may be very low on Vancouver Island and in the lower Fraser Valley. If present on Vancouver Island, they are likely restricted to mountainous areas.

Habitat

At landscape level, wolverine habitat is best defined in terms of adequate

year-round food supplies (ungulates, small mammals, ground-dwelling birds, fruits, etc.) in large, sparsely inhabited wilderness areas. At stand level, important structural characteristics are those that favour an abundance of food and an avoidance of humans. Females tend to inhabit higher elevations with early successional (alpine-type) and late successional (coniferous forests) stands in summer, during the rearing season; females in winter, and males all year-round, tend to use lower elevations with late-successsional stands. Habitat features include dens associated with coarse woody debris and rock piles, deep snow cover and small-scale (<100 m across) forest openings, with proximity to food resources.

Elevations: Valley bottoms to alpine meadows.

Structural stages: 1-2 (food), 6-7 (food, thermal cover and security)



BADGER Taxidea taxus jeffersonii

Description

Stocky, flattish, short-legged mustelid with a shaggy, multi-coloured coarse pelage with an overall yellowgrizzled-grey effect and a white dorsal stripe. The *jeffersonii* subspecies has a reddish-brown colouration and a short dorsal stripe. Short, bushy tail. Wedge-shaped head with alternating black and white bands ("badges"), the median white stripe extending from slightly upturned nose to nape. Muscular forelegs with black feet with extremely long claws (>5 cm) and partially webbed toes to remove loose soil. Males larger than females.

Total length: 50-80 cm *Weight:* 3.6-11.0 kg

Similar species: The wolverine is larger, bulkier and browner, and lacks facial stripes.



Badger

Field signs

Tracks: 5 cm long tracks, turned in as though badgers are walking pigeon-toed; five toes and conspicuous claws.



Scats: cylindral with hair and bones. *Burrows:* with large entrances.

Large *disturbed areas* where badgers dug for small mammals.



Distribution

Extreme eastern portion of the Chilliwack forest district.

Habitat

Most badger activity is at low elevations in dry regions, within native or non-native grasslands, open forests of Douglas-fir or ponderosa pine and disturbed sites such as roadsides and agricultural fields. They also inhabit cut blocks, burns, early seral forests and other open sites. Badgers use a variety of soil types. Most common types are moderately coarse-textured brunisols with lowmoderate (<35%) coarse fragment content, originating from glaciofluvial and glaciolacustrine parent material. Badgers sometimes burrow along disturbed road right-of-ways, but mortality risks are high. Badgers feed on a wide variety of animals, and are adapted to capturing fossorial prey.

Structural stages: 1, 2



Badger in the entrance of its burrow