# **Nature Chilliwack Birding Guide**

Covering the Chilliwack, Hope and Harrison Hot Springs areas

Photos and text by Nature Chilliwack members

www.naturechilliwack.ca



### **Trumpeter Swan**

Flocks arrive in late fall and feed on plants in fields, wetlands, and bays through to early spring. This large white swan with a black bill calls with a loud and deep single or double nasal honk. Less common is the slightly smaller Tundra Swan with its noisy, high-pitched whooping call.



### **American Wigeon**

Wigeons are a common sight in wetlands and fields, nibbling on grass and aquatic plants. The male has a distinctive white forehead and green eye patch. Females have a dark eye smudge. Noisy flocks squeak wi-WIW-weew. The similar Eurasian Wigeon with its rufous head and buffy forehead is much rarer.



### **Green-winged Teal**

This seasonal visitor (Sept-Apr) is a very small, pigeon-sized dabbler that feeds on seeds and aquatic plants. Breeding males have a chestnut head, a green eye stripe that runs to its neck, and a white shoulder bar. Flocks can be seen in shallow wetlands, sloughs and flooded fields.



### **Lesser Scaup**

Small diver found on lakes, ponds, and bays in large flocks, diving for molluscs, other prey, and plants in fall-winter. Males have blackish head and tail, white body, and blue bill; females are grey-brown with white at the base of the bill. They nest in marshy vegetation in or near lakes and ponds.



### **Common Goldeneye**

Medium-sized diver seen in lakes, rivers and bays in small flocks in fall-winter, dives for crustaceans, fish, molluscs and other prey. Males are mostly white, iridescent-green head, and white round patch in the face. Females are grey with brown head. Nests in tree cavities near marshy lakes and beaver ponds.



# **Common Merganser**

A large fish-eating duck common on lakes and rivers. Adult males have white bodies and dark, iridescent-green crestless heads. The back is black and the bill red. Females are grey-bodied with white chest, brown heads and shaggy crest. Nests in tree cavities or on the ground near lakes.



#### Canada Goose

This big, black-necked goose with the signature white chin strap is widespread and seen in wetlands, farm fields and lawns or observed overhead in loud-honking V-formation flocks. They mate for life and nest on the ground. The similar-looking yet much smaller Cackling Goose arrives for fall-winter.



#### **Wood Duck**

These ducks are found year-round in open woodlands near ponds, sloughs and, wetlands. Males are iridescent chestnut and green. Females have a tear-drop shaped white eye-patch and nest in tree cavities or nest boxes. Males give a thin, high-pitched whistle when alarmed.



#### Mallard

With a green head and yellow bill, the Mallard is the most abundant and common duck in Canada. It can be found in aquatic habitats, parks, and fields mixed with other duck species. Both male and female have a white-bordered blue patch on the wing. They dabble, or tip over, to feed on aquatic plants



### Ring-necked Duck

A small diver found in small flocks on freshwater ponds in fall-winter. Distinct white ring near the black tip of a greyish bill, tall head with a sharp peak on the crown. Male has white ring at base of the bli, white bar behind breast and black back; female has brown back, greyish flank and white eye ring.



# Bufflehead

A small diving duck seen fall-spring in small flocks on lakes and ponds, diving for molluscs, crustaceans and insect larvae. Male mostly white with white in the back of a large round iridescent head. Female is dark grey with an oval white head patch. Nests in tree cavities near ponds and rivers.



# **Hooded Merganser**

A diving duck seen throughout the year in small flocks in sheltered sloughs, ponds and bays feeding on fish, crustaceans and insects. Often seen in pairs. Thin bill and distinctive crest that can be raised, white on males and brown on females, when lowered the male's crest resembles a white stripe.



#### Pied-billed Grebe

The most frequently seen grebe on ponds and open waters close to aquatic vegetation. Usually solitary, or in small groups. Dives for insects, crayfish and small fish. The adult is brownish with an indistinct pattern and a stout bill with a black ring during breeding. Nests around marshy ponds and sloughs.



#### **Rock Pigeon**

This common city pigeon is found around parks, farms, bridges and cliffs. It was introduced in the 1700s. This plump bird is seen in flocks, often on the ground pecking for seeds. It is a favourite prey for Peregrine Falcons. Their plumage is variable, often with green-purple iridescence on the neck.



### Anna's Hummingbird

Year-round residents since 2005. Males have a green back, grey belly and iridescent red crown and throat. Females have grey bellies and small reddish throat patch. Found in urban, suburban, forest and riparian sites, feeding on insects, nectar and sap. Males produce a loud chirp in the courtship dive.



### **American Coot**

Found in ponds, marshes, lakes, salt bays, fields, and parks. This duck like, black-grey bird has a white bill, white under the tail, green-yellow legs and lobed toes. These dabbler-divers are omnivorous, eating vegetation, insects, snails, fish and tadpoles. They pump their head as they move.



### **Great Blue Heron**

This large blue-grey heron with a daggerlike bill hunts for amphibians, insects, snakes, and fish in marshes, lakes, river shores, tidal flats, and ditches. In fields, it hunts for rodents. In flight, watch for its slow wing beats and tucked back head. Herons nest in colonies in treetops near water.



#### Ospre<sub>\</sub>

A large fish-eating hawk seen around open water spring-summer. Perches in branches of trees or snags. Hovers over water and dives head and feet-first to catch fish. Long wings held slightly arched. All dark upper and white under. White head with black eye-stripe. Nests in dead trees near water.



### **Bald Eagle**

Very large raptor seen all year often near water, usually solitary but gathering in large numbers during salmon runs and at waterfowl staging areas. Adults are dark with a white tail and head and yellow bill. Feeds on carrion and various prey. Juvenile mottled brown, taking 4 years to reach adult aspect.



#### Barred Owl

Large owl found in woods and wooded wetlands. Large head with apple-shaped face disk and no ear tufts, dark eyes, and pale-yellow bill. Back brown with white spots, front brown throat, and chest with white streaking and pale dark-streaked belly. Legs and feet feathered, bare toes in juveniles.



#### **Eurasian Collared-Dove**

This pale greyish-brown dove is a native of Europe and Asia. By 2009, they spread to Chilliwack and are now a common species year-round. Look for the narrow black crescent on the back of the neck and pink feet. It forages in trees and shrubs eating berries and on seeds on the ground and at feeders.



#### Rufous Hummingbird

Smaller than Anna's, males have orange backs, sides, and a red throat. Greenish females have rusty sides, a white chest, and some neck spots. They arrive in March to nest; leave for the alpine in June-July and return to the tropics in August. Males attract females by making a high trill sound at the bottom of a U-shaped dive.



#### Glaucous-winged Gull

The typical resident gull of coastal areas found near the ocean and inland in cities, ponds, lakes, dumps and fields. This omnivorous gull hybridizes with other species and its colour varies as it ages. Adults have a white head, pale grey wings and pink legs. Nests on low flat coastal islands.



### **Turkey Vulture**

A large carrion-eating bird seen soaring overhead spring-fall. Recognized when flying by black body and black leading edge of two-tone wings, long tail and wings angled up when soaring. Small head, red in adults and grey in juvenile birds. In flight, spread primary feathers resemble fingers.



#### Cooper's Hawk

A medium-sized hawk found in woods and wood edges, hunting for birds and mammals, and often seen preying on birds at urban feeders. Its tail is long with dark and light bands and the head has a dark cap. The white underparts are finely streaked with rufous bars. Nests in tall trees, especially conifers.



# Red-tailed Hawk

The most common hawk in the area, often seen perched in trees or on fence posts. Solitary hunter of mainly small mammals from a perch or while hovering. Large head, rounded wings, pale underside of flight feathers, and short red tail in adults. The more common light morph has a dark belly hand.



### Belted Kingfisher

Medium-sized fish-eating diving bird around any sheltered open water. Adults bluish-grey back and large head crowned by a bushy crest, massive long and pointy black bill, white belly with a bluish-grey breast band, the female has a rufous belly band and flanks. Dives from low branches overhanging water.



### **Downy Woodpecker**

The smallest woodpecker in North America with a short bill, dingy-white below, upperparts mostly black with a white back and bold white wing spots. Head striped black and white, with red nape in male. Common in woods, often foraging along small branches and twigs. Commonly seen at bird feeders.



### **American Kestrel**

An uncommon small falcon, found in a variety of open habitats, including urban areas. Hunts from perch or flight feeds on small mammals, birds, and insects. Long, narrow and pointed wings, tail longer than wing width. Dark vertical bar on sides of a white face. Reddish-brown back, male bluegrey wings.



### Steller's Jay

Common in coniferous and mixed forests. Gregarious usually in small groups, feeds on insects, fruit, and seeds. A common visitor to feeders. Dark long crest, grey head, upper back and breast, dark blue on the rest of the body, light blue streaking on the forehead. Often bobs tail when perching.



### **Black-capped Chickadee**

A familiar small songbird, common in forests, parks, and backyards. Highly gregarious and forms and moves in small groups, often joined by other songbirds. Feeds on insects, spiders, and seeds. White cheeks, black cap and throat, buffy flank, and grey wings with white-edged feathers.



### **Violet-green Swallow**

An early migrant swallow that glints a violet-green back in the sun. It swoops over water for insects or to drink. Like tree swallows, it nests in cavities and birdhouses. To distinguish it from the tree swallow, look for the white patch on its rump and the white encircling the eye.



# Bushtit

This tiny bird has grey-brown upperparts, pale belly and a long tail. Found locally year-round. It feeds on aphids and other insects, spiders, and seeds. Lays 5 to 7 eggs in a suspended, gourd-shaped nest woven from plants and lichens. In winter flocks of 50 are not uncommon. Comes to suet feeders.



### **European Starling**

Not as common as formerly, the muchmaligned starling eats many lawn and agricultural insect pests. In breeding plumage, this short-tailed bird shines an iridescent purple-green and has a bright yellow bill. Young birds are dusky coloured. In winter they are heavily speckled. Nests in cavities.



#### Northern Flicker

Large woodpecker found in woods and wood openings foraging for ants on the ground. Grey or brown head, long slightly curved bill, black breast band, brownish barred back and spotted belly. Reddish to orange under the wings and tail, and white rump. Males have a red moustache. Nests in tree cavities.



### **Peregrine Falcon**

Uncommon large falcon, found in open spaces and near cliffs, and in urban areas. Solitary, hunts from perches or flight, feeds on medium or small birds. Medium length tail, long pointy wings, wide black cheek bar, bluish-grey back, white breast, finely barred wings, and belly. Nests on cliff ledges.



#### American Crow

Common in coastal forests, beaches, riverbanks, fields, and urban areas. Gregarious, found in small groups or in flocks and forms large roosts at night. Forages for small animals, bird eggs and chicks, fish, snails, insects, seeds, fruits, and human refuse. Coastal species, formerly Northwestern Crow, now classified as American Crow.



#### Tree Swallow

This swallow has a shiny blue back and white underparts. The dark of the head extends below the eye. It is the first swallow to return in spring to the nesting grounds. It feeds on insects caught in flight often over water. It nests in tree cavities or birdhouses. Look for it over the Fraser River.



## Barn Swallow

This swallow is the last migrant of spring. Now it is an endangered species but still found in the Fraser Valley. It has blue-black upperparts, cinnamon breast, and dark redbrown forehead and throat. The tail is deeply forked. It plasters a cup-shaped mud nest to buildings. Found near water where it swoops low for insects.



### Golden-crowned Kinglet

A tiny, toonie-sized bird with an olive-green body, two white wing bars, and striped black and yellow-orange crown. Found in flocks, often with chickadees, in winter in coniferous-deciduous mixed forests where they glean insects from cones and branches. Listen for the kinglet's high-pitched call.



### **American Robin**

A familiar North American thrush, found year-round in the Fraser Valley. It has grey upperparts, black head, and orange-red breast. It has a beautiful spring song. It lays 3 to 7 pale blue eggs in a grass and mud nest. Feeds on fruits, berries, worms, and insects. Look in gardens or city parks.



#### **Cedar Waxwing**

Striking songbird with a crested head, pinkbrown plumage, black mask, yellow-tipped tail, and waxy red wingtips. Young are streaked. Feeds on wild fruits and berries in small flocks and hunts on the wing for insects. Builds a nest of grass and twigs in a fork of a shrub or tree. Listen for its purring call.



#### **House Finch**

A familiar finch, the male has a pink head, throat and rump, with a streaked brown body. The drab female lacks any red. Found locally year-round, it feeds on seeds, flowers, leaves and fruit. It often places its nest of twigs and plant fibres in garden planters and foundations. Warbling song is melodious.



### **American Goldfinch**

Small finch with a canary-like song and looped flight. The bright yellow breeding male has a black cap, wings and tail. The female and winter male are a muted brownish-yellow. This seed eater nests in early summer, building a fibre cup low in bushes or small trees. Dandelion seeds are a favourite.



#### Dark-eyed Junco

This sparrow, found year-round, is a common feeder bird in winter. Local subspecies has white belly, black head with pink bill, and brown back and sides. Flocks feed on the ground, scratching for seeds and insects. It flashes white outer tail feathers when it flies. Builds a cup-like gras-and-hair nest in a depression on the ground.



# **Golden-crowned Sparrow**

Large sparrow, similar to the whitecrowned, winters locally. Flocks feed on the ground in gardens, parks and agricultural land eating seeds and insects. Mature birds have a gold cap bordered widely with black and a long tail. The crown is less bold in juveniles. Its song sounds like *oh-dear-me*.



### **Spotted Towhee**

This large resident sparrow lives in dense undergrowth. It has red eyes, black hood, a white-spotted back, white belly and striking red sides. Common in gardens, it scratches for insects and seeds. The towhee has a harsh mewing call. It is a ground nester that hides its shredded-bark nest in the underbrush.



### Yellow-rumped Warbler

A common warbler in spring and fall migration, but it can be seen all year. The yellow rump is distinct in all plumages. The throat is yellow in Audubon, and white in Myrtle; juveniles and females are duller. Found in mixed forested areas, it hunts insects from a twig perch and hides its nest in tall conifers. It has a slow warbling song.



#### **House Sparrow**

As its name implies, this common local bird likes to nest in houses and buildings. The male has a black bib, grey cheek, and crown. The plain female has no bib and a brown cap. Feeding on seeds and scraps, it can often be seen at bird feeders as well as outdoor cafes. Voice is a loud *cheep*, *cheep*.



#### Pine Siskin

This small sharp-billed, brown-streaked finch with a touch of yellow on wings and notched tail is seen in winter in large flocks. It forages on the ground and in trees for seeds and insects. When eating from conifers or alders, it often hangs upside down. Its nest is seldom seen. Call a buzzy zee



### Fox Sparrow

This robust, melodious sparrow has a yellow lower bill and chocolate-brown head and back, white belly and a boldly streaked breast. It forages near and under bushes by vigorously scratching leaves to expose insects. It builds its cup-like nest of grass, lichen and leaf on the ground under a shrub.



# White-crowned Sparrow

This common sparrow, found in bushy areas scratching leaf debris for seeds or insects, has a black and white striped head and grey breast. Juveniles have streaked reddish brown-crowns. Its cheerful song can be heard in urban areas often at night. It builds a bulky nest on the ground among shrubs.



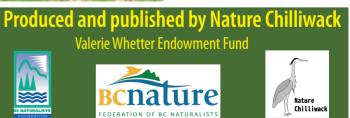
#### Song Sparrow

Our commonest sparrow, found all year both near and far from human development, is a nutty-brown colour with a central dark spot on a streaked breast. It frequents garden feeders in winter. The nest of plant fibres is found on the ground or low in a shrub. Song is a series of bright, buzzy notes.



### Red-winged Blackbird

The song of this marsh-dweller is a familiar spring sound. The male's plumage is jet-black with bright red shoulder patches edged with yellow. Females are streaked brown with broad eye-stripe. It nests in freshwater cattail marshes and winters in flocks, often with starlings, in agricultural



#### INTRODUCTION

This birding guide was created by Nature Chilliwack, with photographs and descriptions for 54 birds most commonly seen by bird watchers (birders) between Chilliwack and Hope. The birds were selected from bird counts logged by birders in eBird from 2012 and 2018 in an area of the Fraser Valley extending from Boundary Rd. (west of Yarrow) to the Othello Tunnels and from the 49<sup>th</sup> parallel to the northern edge of Sasquatch Provincial Park.

In the Guide, the birds are ordered according to their taxonomic index, and grouped into Species Groups (Clements, J. F, 2019¹). Species groups are groupings of closely related bird species at the Order or Family level.

### SPECIES GROUPS AND BIRD SPECIES

**WATERFOWL:** Canada Goose, Trumpeter Swan, Wood Duck, American Wigeon, Mallard, Green-winged Teal, Ring-necked Duck, Lesser Scaup, Bufflehead, Common Goldeneye, Hooded Merganser, Common Merganser.

**GREBES:** Pied-billed Grebe.

**PIGEONS AND DOVES:** Rock Pigeon, Eurasian Collared-Dove. **HUMMINGBIRDS:** Anna's Hummingbird, Rufous Hummingbird.

RAILS, GALLINULES, and ALLIES: American Coot. GULLS, TERNS, and SKIMMERS: Glaucous-winged Gull.

HERONS, IBIS, and ALLIES: Great Blue Heron.

**VULTURES, HAWKS, and ALLIES:** Turkey Vulture, Osprey, Cooper's Hawk, Bald Eagle, Red-tailed Hawk.

**OWLS:** Barred Owl.

KINGFISHERS: Belted Kingfisher.

WOODPECKERS: Downy Woodpecker, Northern Flicker.

**FALCONS and CARACARAS:** American Kestrel, Peregrine Falcon. **TITS, CHICKADEES, and TITMICE:** Black-capped Chickadee.

MARTINS and SWALLOWS: Tree Swallow, Violet-green Swallow, Barn Swallow.

LONG-TAILED TITS and BUSHTIT: Bushtit.

**KINGLETS:** Golden-crowned Kinglet.

STARLINGS and MYNAS: European Starling.

THRUSHES: American Robin.

**OLD WORLD SPARROWS:** House Sparrow.

FINCHES, EUPHONIAS, and ALLIES: House Finch, Pine Siskin, American Goldfinch.

NEW WORLD SPARROWS: Fox Sparrow, Dark-eyed Junco, White-crowned Sparrow, Golden-crowned

Sparrow, Song Sparrow, Spotted Towhee.

Clements, J. F., T. S. Schulenberg, M. J. Iliff, S. M. Billerman, T. A. Fredericks, B. L. Sullivan, and C. L. Wood. 2019. The eBird/Clements Checklist of Birds of the World: v2019. Downloaded from <a href="https://www.birds.cornell.edu/clementschecklist/download/">https://www.birds.cornell.edu/clementschecklist/download/</a>

#### **BIRD WATCHING ETHICS**

Birds Canada fully endorses The American Birding Association's Code of Birding Ethics and encourages their supporters to abide by this code, reproduced below.

# "Code of Birding Ethics v.2.1, Nov. 2019

Practice and promote respectful, enjoyable, and thoughtful birding as defined in this code •

- 1. Respect and promote birds and their environment.
  - a) Support the conservation of birds and their habitats. Engage in and promote bird-friendly practices whenever possible, such as keeping cats and other domestic animals indoors or controlled, acting to prevent window strikes, maintaining safe feeding stations, landscaping with native plants, drinking shade-grown coffee, and advocating for conservation policies. Be mindful of any negative environmental impacts of your activities, including contributing to climate change. Reduce or offset such impacts as much as you are able.
  - b) Avoid stressing birds or exposing them to danger. Be particularly cautious around active nests and nesting colonies, roosts, display sites, and feeding sites. Limit the use of recordings and other audio methods of attracting birds, particularly in heavily birded areas, for species that are rare in the area, and for species that are threatened or endangered. Always exercise caution and restraint when photographing, recording, or otherwise approaching birds.
  - c) Always minimize habitat disturbance. Consider the benefits of staying on trails, preserving snags, and similar practices.

### 2. Respect and promote the birding community and its individual members.

- a) Be an exemplary ethical role model by following this Code and leading by example. Always bird and report with honesty and integrity.
- b) Respect the interests, rights, and skill levels of fellow birders, as well as people participating in other outdoor activities. Freely share your knowledge and experience and be especially helpful to beginning birders.
- c) Share bird observations freely, provided such reporting would not violate other sections of this Code, as birders, ornithologists, and conservationists derive considerable benefit from publicly available bird sightings.
- d) Approach instances of perceived unethical birding behavior with sensitivity and respect; try to resolve the matter in a positive manner, keeping in mind that perspectives vary. Use the situation as an opportunity to teach by example and to introduce more people to this Code.
- e) In group birding situations, promote knowledge by everyone in the group of the practices in this Code and ensure that the group does not unduly interfere with others using the same area.

#### 3. Respect and promote the law and the rights of others.

- a) Never enter private property without the landowner's permission. Respect the interests of and interact positively with people living in the area where you are birding.
- b) Familiarize yourself with and follow all laws, rules, and regulations governing activities at your birding location. In particular, be aware of regulations related to birds, such as disturbance of protected nesting areas or sensitive habitats, and the use of audio or food lures.

Birding should be fun and help build a better future for birds, for birders, and for all people Birds and birding opportunities are shared resources that should be open and accessible to all

### Birders should always give back more than they take

Please follow this Code and distribute and teach it to others"

More about the American Birding Association can be found at <a href="https://www.aba.org/">https://www.aba.org/</a>

#### BIRD IDENTIFICATION

To identify a bird one needs to observe the bird and determine certain characteristics of the bird.

#### **BEGINNER IDENTIFICATION SKILLS.**

- 1. SIZE. The easiest way to judge size is by comparing your bird to familiar birds such as: Black-capped Chickadee 13 cm, House Sparrow 16 cm, American Robin 23 cm, Steller's Jay 30 cm, American Crow 44 cm, Mallard 58 cm. (Bill tip to end of tail measurements)
- 2. BILL SHAPE. A bird's bill is designed to suit the way it feeds, and the more specialized the feeding habits the more distinctive the bird's appearance. E.g., Golden-crowned Kinglet thin for eating insects, House Sparrow stout for cracking seed, Peregrine Falcon hooked for tearing flesh, Great Blue Heron long spear-like bill for jabbing into water to catch fish, frogs, etc.
- 3. FIELD MARKS. Develop the ability to spot distinctive patches of colour. Key places are on the face, neck, rump and wings. Look for bars, eye patches, and stripes. Are there any spots or streaks elsewhere on its plumage? Also look for a crest on its head, colour of its legs and bill. E.g., Dark-eyed Junco white feathers on either side of tail, Cooper's Hawk black cap over the head, Canada Goose white chin strap, White-crowned Sparrow black and white striped head.
- 4. LEG LENGTH AND SHAPE. The design of the bird's legs reflects its way of life or the habitat in which it lives. E.g., European Starling medium-sized legs for general purpose, Heron long legs for wading, American Goldfinch short legs for perching, Red-tailed hawk robust legs with sharp talons to secure prey.
- 5. STANDING AND MOVING. A bird that lives in the trees moves by hopping, a ground-dwelling bird usually walks. Some birds have an upright stance, others more horizontal. E.g., Song Sparrow hops with cocked up tail, Barred Owl stands upright, Golden-crowned Kinglet a more horizontal stance.
- 6. WING SHAPE. Even when a bird is flying high, often its silhouette is enough to place it in a broad group and practice reading silhouettes can lead to exact id. E.g., American Crow has deeply slotted wing tips, American Kestrel long and pointed, Barn Swallow long, pointed and slightly swept back.
- 7. TAIL SHAPE. The shape of a bird's tail, like the shape of its wings, can be sufficiently distinctive to be a useful recognition feature even when a bird is flying high. E.g., Red-tailed Hawk rounded tail, Cooper's Hawk straight narrow tail.
- 8. FLIGHT PATTERN. Birds glide, flap, soar, hover, and perform a multitude of aerobatic tricks. E.g., American Kestrels are unmistakable when hovering. House finches rise and fall as they fly, alternatively beating rapidly their wings, then keeping them closed, European Starling, flies in direct line, Turkey Vulture soars in thermals looking for carrion.
- 9. FEATURES VISIBLE IN FLIGHT. Wings bars, flashes on the tail, how it holds its legs and neck when it flies, whether it flies in formation or sings in flight. E.g., Great Blue Heron even far away one can see legs trailed, long pointed bill, neck bent in S shape. Northern Flicker flash of colour under the wings and tail and a white rump, Barn Swallow deeply forked tail.
- 10. SONGS AND CALLS. A bird's song is an unmistakable identifier. A useful technique is to memorize the song pattern. E.g., Black-capped Chickadee sings "chick-a-dee-dee" as a warning, a Barred Owl calls "who-cooks-for-you", Eurasian Collared-Dove sings a hooting "coo-COO-cup."

#### ADVANCED IDENTIFICATION SKILLS

As one becomes more proficient, by consulting field guides or other reference material such as on line resources, or smartphone apps, one can strive to hone in on the following identification points that will increase the accuracy of your bird identification:

- 11. SEASON AND TIME. When to look for migratory species.
- 12. HABITAT TYPE. Where you will find birds, e.g., wetland, conifer forest, deciduous forest, urban, suburban, meadows, etc.
- 13. PLACE WITHIN HABITAT. E.g., ground, in brush pile, low, higher or at top of trees, etc.
- 14. BEHAVIOUR. Essentially this is what the bird does; how, when, and where.
  - a) SOCIAL. Is the bird solitary, e.g., Swainson's Thrush, or is it gregarious, spending most of the time in flocks, e.g., Black-capped Chickadee, American Goldfinch. When with other birds, does it engage in common activities or games, e.g., American Crow, Steller's Jay.
  - b) THREAT. Does it perform alarm displays or calls to let other birds know there is a predator nearby.
  - e.g., American Robin, or does it display a mobbing behaviour by forming a group of birds and attacking

or chasing away the predator or intruder, e.g., Red-winged Blackbird, American Crow. c) FEEDING. If a seed eater, is it a ground feeder, e.g., Dark-eyed Junco, Eurasian Collared-Dove, or does it forage in the vegetation or tree branches, e.g., House Finch, Black-capped Chickadee. If waterfowl does it feed by dabbling, e.g., Mallards, Wood Ducks, or does it feed by diving, e.g., Ringnecked Duck, Common Goldeneye. If an insect eater does it feed on the wing, e.g., Swallows, Swifts, or does it hunt insects by darting from a twig perch, e.g., Cedar Waxwing, Yellow-rumped Warbler, or does it glean insects along branches, or from cones or leaves, e.g., Golden-crowned Kinglet, Bushtit. d) BREEDING. Breeding displays by males such as singing (most birds), puffing feathers and dancing, e.g., House Sparrow, or displaying brightly coloured feathers, e.g., Red-winged Blackbird, or bringing twigs and branches for nest building e.g., Great Blue Heron. Who sits in the nest, females, males, or males and females taking turn.

As you become more experienced, you will increase your knowledge in a number of areas such as; 15. BIRD ASSOCIATIONS. Knowing what birds follow or join flocks of other birds is useful to help find in the field a number of bird species, e.g., Bushtits and a number of Warblers often follow flocks of Chickadees.

16. SONGS AND CALLS. Learning more call notes, alarm calls, breeding calls, and territorial calls will allow you to increase the certainty of your bird identification. It is estimated that 90% of the bird identification made by expert birders is by ear. This is especially important in forest environments where birds are less visible.

17. PLUMAGE COLOUR. Learning plumage changes among sexes, growth stages and season as a useful identification tool, as it is to recognize the morphs<sup>2</sup>, or colour phases of various species.

Morphs, or Colour Phases

#### ADDITIONAL BIRDING RESOURCES

**BIRDS CANADA.** A non-profit, charitable organization built on the enthusiastic contributions of thousands of caring members and volunteer Citizen Scientists. Its mission is to conserve wild birds through sound science, on-the-ground actions, innovative partnerships, public engagement, and science-based advocacy.

Birds Canada provides budding birders with tool to help identify birds in your area. <a href="https://www.birdscanada.org/">https://www.birdscanada.org/</a>
ATLAS of the BREEDING BIRDS of BRITISH COLUMBIA. A publication designed and produced by Birds Canada in partnership with Federal and Provincial Departments, and with BC Nature, the BC Field Ornithologists, the Pacific Wildlife Foundation and Louisiana Pacific Canada Ltd., with the goal of bringing bird-interested communities in the common stewardship goal of attaining "better conservation of our birds and the places they live."

The Atlas provides information about 320 species for which there was breeding evidence recorded in at least one 10 km<sup>2</sup> square for the atlas period (2008–2012) regarding: characteristics (description) and range; distribution, abundance and habitat; and conservation and recommendation.

**eBird.** Managed by the Cornell Lab of Ornithology, documents bird distribution, abundance, habitat use, and trends through checklist data collected by birders about when, where, and how they went birding, and then fill out a checklist of all the birds seen and heard during the outing. It provides birders with summaries of observations, and species counts at locations visited by birders (hotspots.) Additionally eBird provides bird descriptions, distribution and has tools that allow birders obtain checklists for each reported hotspot. eBird can be accessed at https://ebird.org/.

Hotspots for the Fraser Valley in BC can be found at <a href="https://ebird.org/region/CA-BC-FV/hotspots">https://ebird.org/region/CA-BC-FV/hotspots</a> and for Metro Vancouver at <a href="https://ebird.org/region/CA-BC-GV/hotspots">https://ebird.org/region/CA-BC-GV/hotspots</a>.

**MERLIN**, eBird's birding app for Android and iOS has three main areas of help. Through the module "Bird ID," it helps birders with bird identification by asking a series of simple questions about where and when did you see the bird, its size (comparative scale), main colours (up to three), and whether it was in a feeder, water, ground, tree, etc. The application then provides the user with best matches each having photos, written description, and bird songs.

A second module, "Photo ID" helps by identifying a bird from a photograph.

The third module "Explore Birds" is a fully searchable bird pack, showing identification information, sounds, distribution map, and photos. You must install the bird pack for your region; the Canada West pack has 371 species and a download size of 498 MB.

Information about Merlin can be obtained from the Merlin website.

Merlin is free and the app can be obtained from the Play Store for Android, or the App Store for iOS.

**iBird Pro,** is a non-free app that is really an electronic bird field guide with 962 species for North America. The data base is fully searchable by common name, scientific name or by banding code. For each species it has illustrations with field markings, sounds, photos and distribution maps.

This app is fully contained so it works regardless the availability of network connection.

**Fraser Valley Birding,** offers information about birding activities, sites, birds recently seen, and other ancillary information. Their website is <a href="https://bcbirding.proboards.com/">https://bcbirding.proboards.com/</a>