

RECOGNIZABLE BIRD FORMS OF CANADA

by Ron Pittaway

Introduction

This checklist comprises 262 recognizable bird forms representing 96 species found in Canada, including a few forms that could occur. Interest in subspecies and morphs that can be identified in the field has increased tremendously in recent years as birders look for new identification and listing challenges.

The sequence and spelling of most English names of species follow the American Ornithologists' Union Check-list (1983) including the Fortieth Supplement (AOU 1995). Except where noted, the scientific names of subspecies follow the AOU Check-list (1957) and *The Birds of Canada* by W. Earl Godfrey (1986). The latter is recommended for use with this checklist because it is the best source of information on subspecies and their ranges in Canada.

There is no official list or authority on the English names of recognizable forms. The use of English names for subspecies was discontinued in the Fifth Edition of the AOU Check-list (AOU 1957). However, names are important labels so I have given a descriptive English name to each recognizable form, including the use of a few historical names.

Most provinces and territories do not have authoritative publications on subspecies. I recommend the use of James (1991) for Ontario, Campbell *et al.* (1990, 1997) for British Columbia, and Godfrey (1986) for all of Canada. The *National Geographic Society* field guide (Scott 1987) illustrates many (not all) of the subspecies and morphs found in Canada. The specialty identification guides to bird families are another excellent source of information on subspecies and morphs.

I encourage birders to take up the recognizable forms challenge. You will learn more about bird biology, taxonomy, nomenclature, distribution, geographical variation, individual variation and field identification. Check off the forms you see in Canada. I hope you enjoy this checklist.

How To Use The Checklist

The following explains the terms and concepts used in the checklist. Related terms are listed near one another rather than in alphabetical order. Be sure to become familiar with these definitions to fully understand the meaning of the checklist.

Recognizable Form or Identifiable Form: The terms are interchangeable. Recognizable Form in this checklist includes any subspecies, group of similar subspecies, and morph that is identifiable in the field. Most of the forms listed in the checklist are distinct in the field, but a few forms (like some species) are extremely difficult to distinguish in the field.

Form: A very useful neutral term that can be applied to any taxonomic unit without nomenclatural significance (Godfrey 1986). Its broad meaning also includes intergrades, hybrids and variants.

Scientific Names: The scientific name of a species always consists of two words (binomial) usually italicized in Latin. For example, *Limnodromus griseus* is the Short-billed Dowitcher. The first word of the scientific name is the genus (plural genera); the second word is the species epithet or name. The generic name and the specific name used together are unique to each species. Closely related species are in the same genus. Some species (not all) are divided into subspecies and a trinomial is used. The third word of the scientific name is the subspecies.

For example, *Limnodromus griseus hendersoni* is the Inland race (*hendersoni*) of the Short-billed Dowitcher. Scientific names of subspecies in the checklist are italicized and enclosed in brackets. Try to use and become familiar with scientific names. I prefer to pronounce scientific names as if they were in English. For example, *Limnodromus griseus hendersoni* is pronounced lim-NOD-roh-mus GRIS-e-us HEN-der-sun-eye. As in the name *hendersoni*, retain the original pronunciation and accent of proper names when they are the base for the specific or subspecific name, adding "eye" for "i" and "ee-eye" for "ii" at the end (Earl Godfrey, pers. comm.). Terres (1982) provides phonetic pronunciations for most generic and specific names. The AOU Check-list (1957) indicates the accents on scientific names, including subspecific names, to aid pronunciation.

Subspecies or Race: The terms are interchangeable. A subspecies is a population (subdivision) of a species that differs from neighbouring populations, usually by subtle differences in colour and size. Subspecies occupy separate geographical breeding ranges (or with limited overlap) exclusive of other subspecies. Caution: most of the subspecies listed in Godfrey (1986) *cannot* be identified in the field, but those well-marked races that can be identified in the field are on the checklist. Each subspecies has a scientific name in Latin. A subspecies' scientific name is the most useful way of referring to well-defined geographical variation in a species.

Nominate Subspecies: A subspecies whose scientific name is the same as the species name. For example, *Limnodromus griseus griseus* is the nominate subspecies of the Short-billed Dowitcher. The nominate subspecies is the first named population, automatically assuming the species name (epithet) once a second subspecies is described and recognized. The nominate subspecies is not necessarily more typical or more important than any other race of the species.

Subspecies Group: Usually two or more very similar subspecies that are combined as one recognizable form for the purposes of this checklist. For example, Slate-colored races is the English name for the three races (two in Canada) in the *hyemalis* subspecies group of the Dark-eyed Junco. Note that one distinct subspecies also can be a group, for example, the White-winged Junco (*aikeni*) is a subspecies group of one! Where two Canadian subspecies constitute a recognizable form, both are listed in the checklist. If more than two Canadian subspecies constitute a form, one subspecies is chosen to represent the form and all other Canadian subspecies in the group are listed in the endnotes.

Intergrade: Intermediates (and intermediate populations) produced by the interbreeding between subspecies. Subspecies intergrade (interbreed freely) where their ranges meet, whereas *most* species rarely hybridize. It is important to keep in mind that where two subspecies intergrade, or a species shows clinal variation, a percentage of the birds may not be identifiable as one form or another. Intergrades between well-marked subspecies are sometimes recognizable in the field, but intergrade forms are not included in the checklist.

Cline: A term for the change in appearance (colour, size, etc.) within a species across its range or part of its range. For example, the increasing darkness of many species going east to west from the prairies to the coast of British Columbia is a cline. Many North American bird species show continuous, gradual, almost imperceptible blending (smooth clines) between neighbouring populations, even though the end points may be quite distinct. The validity of giving formal names to these end point populations is questionable because the wide zones of intergradation make it impossible to draw boundaries around subspecies. In a few species, clinal variation is abrupt (step clines) with narrow zones of intergradation between well-marked subspecies. These well-defined subspecies are good candidates for recognizable forms.

Comment on Subspecies: The last AOU Check-list (Fifth Edition) to include subspecies was published in 1957. It is now in need of an update. The Sixth Edition of the AOU Check-list (1983) did not include subspecies but "strongly endorses the concept of subspecies and the continued use of trinomials to express it." The AOU intends to update the list of subspecies in a future edition of its check-list, but not in the next or Seventh Edition (Henri Ouellet, pers. comm.). In the past, many poorly defined and smoothly clinal populations were given subspecific scientific names, lending an undue importance to these named populations. A careful analysis should eliminate many currently recognized races.

Caution on Subspecies: Birders are cautioned to be careful about identifying vagrant subspecies. Sightings should include documentary evidence such as good photographs or tape recordings if the song or calls are diagnostic. If uncertain about the identification of a subspecies or subspecies group, one can qualify the report by saying that the bird "showed characters" of the race reported.

Morph: Morph replaces *colour phase* as the more accurate term. Unlike subspecies, morphs do not have scientific names. Morphs are distinct colour types that coexist in the same interbreeding population, often in the same brood. Two or more morphs may occur in the same species. For example, the Ferruginous Hawk has distinct light and dark morphs. On the other hand, some species like the Ruff are highly variable, so the names of the morphs are arbitrary. Morphs usually are not correlated with age, sex, subspecies or season. In species like the Little Blue Heron, for example, the juvenile is white and the adult is a slate-blue, but these two colours are not morphs, just different plumage phases related to age. Similarly, males and females of many species are different, but they also are not morphs.

Intermediate Morph: In only a few species are the morphs clearly dimorphic, having two distinct types with few or no intermediates. The term *intermediate* is used instead of intergrade for morphs. For species like the Gyrfalcon that show continuous variation between light and dark morphs, the plural *intermediate morphs* is used in the checklist.

Hybrids: Many hybrids are recognizable in the field: for example, Brewster's and Lawrence's warblers, but hybrids are not treated in the checklist.

Variants: Birders will encounter colour forms caused by albinism, leucism, melanism, xanthochroism, mutations, diet, and extreme individual variation within a species, but these forms are not treated in this checklist.

Asterisk: * Indicates that the form has not been recorded in Canada to my knowledge, but is listed because it may occur.

References: Use this checklist with the subspecies accounts and ranges in Godfrey (1986). For your convenience, articles having detailed information on subspecies and morphs from three birding journals are referenced in the checklist. Journals listed are: B = Birding, BJ = Birders Journal, and OB = Ontario Birds. For example, the reference BJ 4 (4) 159-166 follows Fox Sparrow in the checklist; this indicates that Birders Journal, Volume 4, Number 4, pages 159 to 166, has a recommended article on the forms of the Fox Sparrow. These references are essential reading for birders studying recognizable forms.

Endnotes: Numbers on the checklist refer to important remarks about many of the forms at the end of the checklist. Generally, endnotes cover *only* those forms not referenced in the checklist from the birding literature.

CHECKLIST OF CANADIAN BIRD FORMS 1997

Northern Fulmar

- ☐ Light morph
- ☐ Intermediate morphs
- ☐ Dark morph

Least Bittern OB 14 (1)26-40

- ☐ Light morph
- ☐ Cory's Least Bittern (dark morph)

Double-crested Cormorant OB 14(3)124-128 ¹

- ☐ Black-crested race (*auritus*)
- ☐ White-crested races (*albociliatus* & *cincinatus*)

Tundra Swan

- ☐ Whistling race (*columbianus*)
- ☐ Bewick's race (*bewickii*)

Mute Swan OB 12(1)19-26

- ☐ Gray morph
- ☐ White (Polish) morph

Bean Goose ²

- ☐ Tundra races (*rossicus* & *serrirostris*)
- ☐ Taiga races (*fabalis* group)*

Greater White-fronted Goose ³

- ☐ Tundra race (*frontalis*)
- ☐ Taiga races (*gambelli* & *elgasi*)
- ☐ Greenland race (*flavirostris*)

Snow Goose OB 10(2)72-76

- ☐ White morph, Lesser race (*caerulescens*)
- ☐ Intermediate morphs, Lesser race (*caerulescens*)
- ☐ Blue morph, Lesser race (*caerulescens*)
- ☐ White morph, Greater race (*atlanticus*)
- ☐ Intermediate morphs, Greater race (*atlanticus*)
- ☐ Blue morph, Greater race (*atlanticus*)

Ross's Goose

- ☐ White morph
- ☐ Intermediate morphs
- ☐ Blue morph

Brant

- ☐ Atlantic race (*hrota*)
- ☐ Pacific (Black) race (*nigricans*)

Canada Goose ⁴

- ☐ Atlantic race (*canadensis*)
- ☐ Interior race (*interior*)
- ☐ Giant race (*maxima*)
- ☐ Lesser race (*parvipes*)
- ☐ Richardson's race (*hutchinsii*)
- ☐ Dusky race (*fulva*)
- ☐ Cackling race (*minima*)
- ☐ Aleutian race (*leucopareia*)

Green-winged Teal

- ☐ North American race (*carolinensis*)
- ☐ European race (*crecca*)

Common Eider ⁵

- ☐ Pacific race (*v-nigra*)
- ☐ Hudson Bay race (*sedentaria*)
- ☐ Maritimes race (*dresseri*)
- ☐ Northern race (*borealis*)

Broad-winged Hawk

- ☐ Light morph
- ☐ Dark morph

Swainson's Hawk

- ☐ Light morph
- ☐ Rufous (intermediate) morphs
- ☐ Dark morph

Red-tailed Hawk OB 11(1)23-29 ⁶

- ☐ Light morph, Eastern race (*borealis*)
- ☐ Light morph, Krider's race (*kriderii*)
- ☐ Light morph, Western race (*calurus*)
- ☐ Rufous morph, Western race (*calurus*)
- ☐ Dark morph, Western race (*calurus*)
- ☐ Dark morph, Harlan's race (*harlani*)
- ☐ Light morph, Harlan's race (*harlani*)

Ferruginous Hawk

- ☐ Light morph
- ☐ Dark morph

Rough-legged Hawk

- ☐ Light morph
- ☐ Intermediate morphs
- ☐ Dark morph

Merlin OB 12(2)74-80 ⁷

- ☐ Taiga race (*columbarius*)
- ☐ Richardson's race (*richardsonii*)
- ☐ Black race (*suckleyi*)

Peregrine Falcon

- ☐ Anatum race (*anatum*-like mix) ⁸
- ☐ Peale's race (*pealei*)
- ☐ Tundra race (*tundrius*)

Gyrfalcon

- ☐ White morph
- ☐ Gray (intermediate) morphs
- ☐ Dark morph

Spruce Grouse

- ☐ Spruce races (*canadensis* group) ⁹
- ☐ Franklin's race (*franklinii*)

Blue Grouse
__Interior (Dusky) races (*richardsoni* & *pallidus*)
__Coastal (Sooty) races (*fuliginosus* & *sitkensis*)

Willow Ptarmigan ¹⁰

__White-shafted race (*leucopterus*)
__Dusky-shafted races (*albus* group)
__Newfoundland race (*alleni*)

Ruffed Grouse ¹¹

__Gray morph
__Brown (intermediate) morphs
__Red morph

Sharp-tailed Grouse ¹²

__Northern races (*phasianellus* group)
__Prairie races (*jamesi* group)

American Coot

__Typical morph
__White-shielded (Caribbean) morph ¹³

Sandhill Crane ¹⁴

__Lesser race (*canadensis*)
__Rowan's race (*rowani*)
__Greater race (*tabida*)

Piping Plover ¹⁵

__Eastern (Coastal) race (*melodus*)
__Western race (*circumcinctus*)

Solitary Sandpiper ¹⁶

__Pale-dotted race (*solitaria*)
__Cinnamon-dotted race (*cinnamomea*)

Willet

__Eastern (Coastal) race (*semipalmatus*)
__Western race (*inornatus*)

Whimbrel

__North American race (*hudsonicus*)
__European races (*phaeopus* & *islandicus*)
__Siberian race (*variegatus*)*

Bar-tailed Godwit *BJ 5(4)184-193*

__European race (*lapponica*)
__Siberian race (*baueri*)

Red Knot ¹⁷

__North American race (*rufa*)
__Nominate race (*canutus*)

Dunlin ¹⁸

__Pacific race (*pacifica*)
__Hudson Bay race (*hudsonia*)
__Short-billed races (*arctica* & *schinzii*)

Ruff

__White morph
__Rufous morph
__Black morph

Short-billed Dowitcher *BJ 1(1)8-25*

__Eastern race (*griseus*) *B 24(5)309-311*
__Inland race (*hendersoni*)
__Western race (*caurinus*)

Pomarine Jaeger

__Light morph
__Intermediate morphs
__Dark morph

Parasitic Jaeger *OB 13(3)123-130*

__Light morph
__Intermediate morphs
__Dark morph

Long-tailed Jaeger

__Light morph
__Intermediate morphs
__Dark morph ¹⁹

South Polar Skua

__Light morph
__Intermediate morphs
__Dark morph

Mew Gull *B 25(6)386-40*

__North American race (*brachyrhynchus*)
__European race (*canus*)

California Gull ²⁰

__Dark-mantled race (*californicus*)
__Light-mantled race (*albertaensis*)

Herring Gull *BJ 4(4)198-201*

__North American race (*smithsonianus*)
__Vega race (*vegae*) ²¹
__European race (*argenteus*)
__Nominate (Scandinavian) race (*argentatus*)

Iceland Gull *OB 10(1)24-26*

__Nominate (Greenland) race (*glaucoides*)
__Kumlien's race (*kumlieni*)
__Thayer's race (*thayeri*) ²²

Lesser Black-backed Gull *B 27(4)282-290*

__British race (*graellsii*) *B 27(5)370-381*
__Intermediate race (*intermedius*)
__Nominate (Scandinavian) race (*fuscus*)*

Glaucous Gull

__Nominate race (*hyperboreus*)
__Northwestern race (*barrovianus*) ²³

Common Murre

__Typical morph
__Ringed morph

Marbled Murrelet *OB 14(1)15-22*

__Marbled race (*marmoratus*)
__Long-billed (Asiatic) race (*perdix*) ²⁴

Eastern Screech-Owl *OB 13(2)66-71*

__Gray morph
__Brown (intermediate) morphs
__Red morph

Western Screech-Owl

__Coastal race (*kennicottii*)
__Interior race (*macfarlanei*)

Great Horned Owl *OB 11(2)64-69*

__Nominate race (*virginianus*)
__Labrador race (*heterocnemis*)
__Snyder's race (*scalariventris*)
__Arctic race (*subarcticus*) ²⁵
__Dusky races (*saturatus* & *lagophonus*)

Northern Saw-whet Owl

__Nominate race (*acadicus*)
__Queen Charlotte Islands race (*brooksi*)

Common Nighthawk

__Typical races (*minor* & *hesperis*)
__Gray race (*sennetti*)

Downy Woodpecker

__Northern races (*nelsoni* & *medianus*)
__Mountain race (*leucurus*)
__Pacific Coast races (*gairdneri* & *glacialis*)

Hairy Woodpecker

__Northern races (*villosus* & *septentrionalis*)
__Newfoundland race (*terraenovae*)
__Mountain races (*monticola* & *orius*)
__Pacific Coast races (*harrisi* & *sitkensis*)
__Queen Charlotte Islands race (*picoideus*)

Three-toed Woodpecker

__Eastern race (*bacatus*)
__Western race (*fasciatus*)

Northern Flicker ²⁶

__Yellow-shafted races (*luteus* & *borealis*)
__Red-shafted races (*cafer* & *collaris*)

Sky Lark ²⁷

__Nominate race (*arvensis*)
__Siberian race (*pekinensis*)*

Horned Lark *OB 12(3)109-115*

__Northern race (*alpestris*)
__Hoyt's race (*hoyti*)
__Pallid race (*arcticola*)

__Prairie race (*praticola*)
__Saskatchewan races (*enthymia* & *leucolaema*)
__Intermontane (Dusky) race (*merrilli*)
__West Coast (Streaked) race (*strigata*)

Cave Swallow *BJ 1(4)176-180* ²⁸

__Greater Antilles race (*fulva*)
__Mexican race (*pallida*)

Barn Swallow

__North American race (*erythrogaster*)
__Asiatic race (*gutturialis*)
__European race (*rustica*)*

Gray Jay ²⁹

__Canadian races (*canadensis* group)
__White-headed race (*bicolor*)
__Oregon race (*obscurus*)

Steller's Jay

__Nominate race (*stelleri*)
__Rocky Mountain race (*annectens*)
__Queen Charlotte Islands race (*carlottae*)

White-breasted Nuthatch ³⁰

__Eastern race (*cookei*)
__Great Basin race (*tenuissima*)
__Pacific Slope race (*aculeata*)*

Winter Wren

__Eastern race (*hiemalis*)
__Pacific race (*pacificus*)

Bewick's Wren

__Eastern race (*altus*)
__Northwestern race (*calophonus*)

Northern Wheatear *BJ 4(1)21-28*

__Western race (*oenanthe*)
__Greenland race (*leucorhoa*)

Veery ³¹

__Eastern races (*fuscescens* & *fuliginosus*)
__Western race (*salicicola*)

Swainson's Thrush ³²

__Russet-backed race (*ustulatus*)
__Olive-backed races (*swainsoni* group)

Hermit Thrush ³³

__Eastern races (*faxoni* & *crymophilus*)
__Rocky Mountain race (*auduboni*)
__North Pacific races (*guttatus* & *nanus*)

American Robin

__Nominate race (*migratorius*)
__Black-backed race (*nigrideus*)
__Western race (*propinquus*)
__Northwestern race (*caurinus*)

Solitary Vireo B 28(6)458-471 ³⁴

- __ Blue-headed race (*solitarius*)
- __ Cassin's race (*cassinii*)
- __ Plumbeous race (*plumbeus*)*

Warbling Vireo ³⁵

- __ Eastern race (*gilvus*)
- __ Western race (*swainsonii*)

Orange-crowned Warbler

- __ Typical races (*celata* & *orestera*)
- __ West coast race (*lutescens*)

Nashville Warbler ³⁶

- __ Nominate race (*ruficapilla*)
- __ Western race (*ridgwayi*)

Black-throated Blue Warbler

- __ Northern race (*caerulescens*)
- __ Appalachian race (*cairnsi*)*

Yellow-rumped Warbler

- __ Myrtle races (*coronata* & *hooveri*)
- __ Audubon's races (*auduboni* & *memorabilis*)

Yellow-throated Warbler BJ 2(3)160

- __ White-lored (Sycamore) race (*albilora*)
- __ Yellow-lored race (*dominica*)

Palm Warbler OB 13(1)23-27

- __ Western race (*palmarum*)
- __ Eastern (Yellow) race (*hypochrysea*)

Common Yellowthroat ³⁷

- __ Typical races (*Campicola* group)
- __ Yukon race (*yukonicola*)

Yellow-breasted Chat

- __ Eastern race (*virens*)
- __ Western (Long-tailed) race (*auricollis*)

Brewer's Sparrow

- __ Nominate race (*breweri*)
- __ Timberline race (*taverneri*)

Savannah Sparrow BJ 5(3)136-141

- __ Typical races (*sandwichensis* group) ³⁸
- __ Ipswich race (*princeps*)

Nelson's Sharp-tailed Sparrow B 28(3)196-208

- __ Prairie race (*nelsoni*)
- __ James Bay race (*alterus*) ³⁹
- __ Acadian race (*subvirgatus*)

Fox Sparrow BJ 4(4)159-166 ⁴⁰

- __ Red races (*iliaca* & *zaboria*)
- __ Slate-colored races (*schistacea* group)
- __ Sooty races (*unalaschcensis* group)

Song Sparrow ⁴¹

- __ Eastern races (*melodia* group)
- __ Sooty races (*morphna* group)

White-throated Sparrow OB 9(3)82-83

- __ White-striped morph
- __ Tan-striped morph

White-crowned Sparrow B 27(3)182-200

- __ Eastern race (*leucophrys*)
- __ Gambel's race (*gambelii*)
- __ Mountain race (*oriantha*)
- __ Puget Sound race (*pugetensis*)

Dark-eyed Junco OB 11(3)101-105 ⁴²

- __ Slate-colored races (*hyemalis* & *cismontanus*)
- __ Oregon races (*oreganus* group)
- __ Pink-sided race (*mearnsi*)
- __ Gray-headed race (*caniceps*)
- __ White-winged race (*aikeni*)*

Common Grackle

- __ Bronzed race (*versicolor*)
- __ Purple race (*stonei*)

Gray-crowned Rosy-Finch

- __ Nominate race (*tephrocotis*)
- __ Hepburn's race (*littoralis*)

Red Crossbill ⁴³

- __ Hemlock race (*sitkensis*)
- __ Eastern Pine race (*minor*)
- __ Bendire's race (*bendirei*)
- __ Newfoundland race (*pussila*)

Common Redpoll OB 10(3)108-114

- __ Nominate race (*flammea*)
- __ Greater race (*rostrata*) BJ 5(1)44-47

Hoary Redpoll OB 10(3)108-114

- __ Southern race (*exilipes*)
- __ Hornemann's race (*hornemanni*)

Lesser Goldfinch

- __ Green-backed race (*hesperophilia*)
- __ Black-backed race (*psaltria*)*

Endnotes:

1. There are several records of the white-crested form of the Double-crested Cormorant in Ontario. It is unknown whether these birds are wanderers from one of the two western subspecies or white-crested variants of the nominate subspecies *auritus*.

2. The Taiga *fabalis* subspecies group includes *johanseni* and *middendorffii*. A specimen from Quebec was identified as *rossicus* of the Tundra group of races (Godfrey 1986). The subspecies *serrirostris* of the Tundra group and *middendorffii* of the Taiga group occur in Alaska (Scott 1987) so they might occur in British Columbia.

3. Taxonomy and nomenclature of the Greater White-fronted Goose subspecies are confusing. See Godfrey (1986) whose treatment is followed here. Both taiga subspecies, *gambelli* and *elgasi*, have been called Tule Goose in the literature. Also, the identification of the Greenland race (*flavirostris*) in North America is discussed by Kaufman (1994).

4. Nomenclature and taxonomy of the Canada Goose are confusing. The subspecies listed here follow Godfrey (1986), but include the taxonomy and corresponding races of Palmer (1976). The Giant race *maxima* includes *moffitti*; the Lesser race *parvipes* includes *taverneri*; the Dusky race *fulva* includes *occidentalis*; and the Aleutian race *leucopareia* includes *asiatica*. Note that there is intergradation between most adjoining subspecies. The large races and small races are genetically distinct and they may represent two or more separate species.

5. The subspecies of the Common Eider are extremely difficult to identify in the field away from the breeding grounds. Intergradation between the races is limited, occurring most often between *dresseri* and *borealis*. I recommend the publication *Eider Ducks in Canada* by Reed (1986).

6. Most Red-tailed Hawks breeding north of the southern edge of the Canadian Shield in Ontario and Quebec fit nicely into the proposed race *abieticola*, which means "dweller of the fir". It breeds across Canada from Nova Scotia to Alberta. If accepted, this would split *borealis* into two subspecies, with the darker more northern birds belonging to *abieticola*. For a description of *abieticola*, see Dickerman and Parkes (1987). Most authorities now consider *krideri* to be a morph and not a valid subspecies.

7. The checklist follows Temple (1972) who makes a good case for lumping *bendirei* as part of the nominate race *columbarius*. Black Merlins have been recorded in Ontario, but it is unknown whether they are vagrant *suckleyi* or dark variants of the nominate race.

8. Peregrine Falcon numbers are rebounding following the DDT era which ended in the 1970s. It is unlikely that many wild *anatum* survived in Canada. The subspecies released in southern Canada was the native *anatum* race. In the United States, various mixtures of *anatum*, *tundrius*, *pealei* and the southern European race *brookei* were released (Peakall 1990). Some released American birds are breeding in Canada. The released birds breeding in southern Canada today are mostly *anatum*-like in appearance. This form also includes remnant populations of true *anatum* that probably survived on the east coast of Hudson Bay and in the western mountains.

9. The Franklin's Grouse was once regarded as a full species. The Spruce subspecies group includes the races *canadensis*, *canace* and *osgoodi*. The *National Geographic Society* field guide (Scott 1987) describes and illustrates gray and red morphs of the Spruce Grouse, but they are better considered extremes of individual variation.

10. The Dusky-shafted subspecies group of the Willow Ptarmigan includes *albus*, *alexandrae* and *ungavus*. The Newfoundland race *alleni* also has dusky shafts to the primaries, but it is further characterized by dusky clouding on the primaries (Taverner 1934).

11. The three morphs are best told by the dominant colour of the tail feathers. Interestingly, about half the females of the gray and brown morphs have a "split morph", with the two central tail feath-

ers markedly redder or browner than the other tail feathers. Gray morph birds are common in most of Canada where winters are severe with deep snow, whereas red morph birds increase in milder climates.

12. The northern subspecies group of the Sharp-tailed Grouse includes nominate *phasianellus*, *kennicottii* and *caurus*. The prairie races include *jamesi*, *campestris* and *columbianus*. The northern group is a dark form and the prairie group is a paler, sandy-coloured form. When northern birds irrupt to the south, they are easily distinguished side by side from the prairie form (Harry Lumsden, pers. comm.).

13. The AOU Check-list (1983) regards the Caribbean Coot (*Fulica caribaea*) as a full species. The white-shielded morph of the American Coot strongly resembles the Caribbean Coot. The latter species may prove to be a morph of the American Coot (AOU 1983).

14. Greater and Lesser races of Sandhill Crane are identifiable in the field, but the intermediate subspecies *rowani* often makes field identification of the subspecies difficult or impossible except under ideal conditions.

15. Some authors consider the Piping Plover to be monotypic (no subspecies) because there is some overlap in the extent of the breast band, but I prefer to follow the treatment of Godfrey (1986). East coast populations usually have a broken pectoral band in breeding plumage; interior birds from the Great Lakes westward usually have a complete pectoral band in breeding plumage. In juvenile and winter plumages, the breast band is incomplete or almost absent in both races.

16. The differences between the two subspecies of the Solitary Sandpiper in the field are quite noticeable in the juveniles, but not in adults. See Paulson (1993) for further information and a fine photograph of a juvenile *cinnamomea*.

17. The nominate *canutus* population of the Red Knot, breeding in high arctic Canada and Greenland, is listed as the subspecies *islandica* by Hayman et al. (1986). Another population of *canutus*, probably from Wrangel Island in Siberia, migrates along the coast of British Columbia. See the discussion on subspecies in Paulson (1993). Most knots seen in southern Canada east of the Rockies are *rufa* (Godfrey 1986).

18. Browning (1977) discusses the geographical variation and describes the subspecies of Dunlin breeding in North America. See also Paulson (1993) for distinctions between the subspecies *pacifica* and *hudsonia*. Refer to Hayman et al. (1986) for illustrations and descriptions of *arctica* and *schinzii*. The latter two European subspecies are possible on the East Coast west to Ontario.

19. The dark morph in adult Long-tailed Jaegers "is excessively rare, if indeed it exists at all" (Godfrey 1986). Field parties from the Canadian Museum of Nature have observed thousands of adult Long-tailed Jaegers over several decades in the Arctic at close range with no reports of dark birds. There are sight reports of dark morph adults in the literature. These could be misidentifications at sea or an odd melanistic individual, the latter not being a true dark morph.

20. The California Gull is currently regarded as monotypic (no subspecies). However, Jehl (1987) describes two well-marked subspecies. The southern nominate race *Larus californicus californicus* breeds in the Great Basin of the United States. The northern race, *L. californicus albertaensis*, named after the province of Alberta, breeds mainly on the Canadian Prairies. The breeding ranges of the two races were separated until recently, but are now joined in Montana. Nominate *californicus* is smaller, smaller billed and darker mantled (medium gray), two full shades darker than a North American Herring Gull. Compared with the nominate race, *albertaensis* is distinguished by its greater size (and mass in the hand), larger bill, and paler mantle approaching or matching the paleness of a Herring Gull. A typical *californicus* is illustrated on page 151 of the *National Geographic Society* field guide (Scott 1987). A typical *albertaensis* is illustrated on Plate 36 in Godfrey (1986). Just recently, Garner (1997) stated that a small Yellow-legged Gull (*L. cachinnans*) at a distance would

be difficult to separate from an *albertaensis* California Gull. However, *albertaensis* acquires dusky streaking on the head and neck in adult winter (definitive basic) plumage unlike *cachinnans*, which remains white on the head and neck.

21. The Vega race of the Herring Gull may prove to be a full species (Michel Gosselin, pers. comm.).

22. Thayer's Gull is treated here as a subspecies of the Iceland Gull following Godfrey (1986) and James (1991).

23. Compared to the nominate race, *barrovianus* is somewhat smaller, particularly the bill, and the mantle of adults is slightly darker (Godfrey 1986). Small females could be confused with an Iceland Gull. In Canada this subspecies breeds in the northern Yukon and western MacKenzie (Godfrey 1986) and occurs on the British Columbia coast in winter (Campbell et al. 1990), but outside this range it would be extremely difficult to identify in the field.

24. The evidence is strong that the Asiatic Marbled Murrelet (*perdix*) is not a subspecies, but a full species. It is morphologically distinct from both Marbled Murrelet and Kittlitz's Murrelet. Formerly considered a distinct species, the Long-billed Murrelet was lumped with the Marbled in the early 1900s. It is genetically more similar to Kittlitz's Murrelet than it is to Marbled (Friesen et al. 1996).

25. On the checklist, *subarcticus* includes *occidentalis* because Canadian populations of *occidentalis* from the southern Prairie Provinces are not separable from *subarcticus* from farther north (Godfrey 1986), first pointed out in the 1966 edition of *The Birds of Canada*.

26. See the excellent article and illustrations on the forms of the flicker by Kaufman (1991). There is considerable interbreeding between Yellow-shafted and Red-shafted flickers where their ranges overlap so they are unlikely to be split back into full species like the Gilded Flicker was recently. Yellow-shafted Flickers with occasional salmon-red wing and/or tail feathers are rather frequent in populations as far east as southern Ontario. Up to one-third of the Yellow-shafted Flickers may show Red-shafted traits (usually minor) in some eastern populations. These birds are intergrades, but because they appear over 1600 km from the main area of intergradation, they are better called introgressants. Introgression is gene flow from one population into another population. Another possibility exists to account for the orange wing and tail coloration of eastern birds: it could be caused by pigments in the diet like the orange tail bands on some Cedar Waxwings. Studies are needed to clarify this matter (Michel Gosselin, pers. comm.).

27. The introduced population of Sky Larks on Vancouver Island is of the nominate subspecies *arvensis*. A Siberian race (*pekinensis*) is casual on the west coast as far south as California. Sightings of Sky Larks in Delta, Port McNeill and the Queen Charlotte Islands may represent the latter subspecies (Campbell et al. 1997).

28. Cave Swallow specimens from Nova Scotia are referable to the nominate race from the Greater Antilles (Godfrey 1986). It also occurs in southern Florida. A sight record from southern Ontario was reported to be of the Mexican subspecies *pelodoma*. The subspecies *pelodoma* is considered here to be a synonym of *pallida*; the latter name is used by most authorities including West (1995) in *The Birds of North America* series. It occurs in the southwestern United States and adjacent northeastern Mexico and is more likely to occur in central Canada than the nominate race.

29. Treatment of subspecies here follows Strickland and Ouellet (1993), which differs somewhat from Godfrey (1986). The Pacific coast subspecies *obscurus* (*griseus* of Godfrey 1986) is resident from southwestern British Columbia to northern California. It was formerly considered a distinct species and called the Oregon Jay. The back feathers have distinct white shafts, which are lacking in the other forms. The subspecies *bicolor* is included with the white-headed race *capitalis* group of the southern Rockies of the United States (Henri Ouellet, pers. comm.). All other Canadian subspecies are considered to be a third form, the nominate *canadensis* group.



Labrador subspecies of the Great Horned Owl *Bubo virginianus heterocnemis*. Possibly the first photograph identified as this race in the birding literature (Michael King).

30. There are three distinct groups of the White-breasted Nuthatch that are easily separable by call notes (Jon Dunn, pers. comm.). All three have been reported in Canada (AOU 1957), but Godfrey (1986) has not seen specimens of *aculeata*. Jon Dunn and Kimball Garrett are working on a paper for publication in *Western Birds*.

31. The differences between Eastern and Western forms of the Veery are not easily detected in the field. The two forms have a broad area of overlap in Ontario (James 1991).

32. Some have thought that the Russet-backed race *ustulatus* might prove to be a distinct species like the Bicknell's Thrush, but recent studies found minor genetic differences between it and other populations of the Swainson's Thrush (Rob Dawson, pers. comm.). In Canada, the Olive-backed subspecies group includes *swainsoni*, *incanus* and *almae*.

33. The three forms of the Hermit Thrush are illustrated on page 327 in the *National Geographic Society* field guide (Scott 1987).

34. The three North American subspecies of the Solitary Vireo are being treated as separate species in *The Birds of North America* series newly published by the AOU and The Academy of Natural Sciences (Ross James, pers. comm.).



Snyder's subspecies of the Great Horned Owl *Bubo virginianus scalariventris*. First photograph of a live bird identified as this race in the birding literature (Sam Barone).

35. The two subspecies of the Warbling Vireo are impossible to identify by sight. However, they are genetically distinct and their songs are different to the trained ear (Ross James, pers. comm.).

36. The western race *ridgwayi* of the Nashville Warbler may be a distinct species. It is similar to the nominate race, but "it has a different song, call notes, and acts differently with much more tail bobbing" (Jon Dunn, pers. comm.).

37. The AOU (1957) recognizes 12 subspecies of the Common Yellowthroat in North America! The species appears to be oversplit (Earl Godfrey, pers. comm.). The typical races (*campicola* group) include *campicola*, *brachidactyla* and *arizela*. In direct comparison with any of the typical races, the subspecies *yukonicola* has distinctly grayer upperparts and would be recognizable in the field (Earl Godfrey, pers. comm.).

38. In Canada, the *sandwichensis* group includes all the subspecies listed in Godfrey (1986) except the Ipswich race *princeps*. There is considerable intergradation but some races, particularly *labradorius*, may be identifiable in the field.

39. The three breeding populations of Nelson's Sharp-tailed Sparrows are allopatric (separated) with little or no exchange of genes. The differences between nominate *nelsoni* and *subvirgatus* are usually distinct, but *alterus* is intermediate, thus complicating identification. Away from the breeding grounds, *alterus* and *nelsoni* are often best considered one form as recommended by Rising (1996). However, Parkes (1992) reports that fresh fall birds in basic plumage of *alterus* and *nelsoni* are readily separated in the hand and possibly in the field given a close view.

40. The Sooty races of the Fox Sparrow are *unalaschensis*, *insularis*, *sinuosa*, *annectens*, *townsendi* and *fuliginosa*. The races of the Slate-colored group are *schistacea*, *olivacea* and *altivagans*. The latter race *altivagans* is often placed with the *iliaca* subspecies group, but vocalizations and biochemical evidence put it with the Slate-colored group (Rising 1996).

41. The Eastern subspecies group of the Song Sparrow comprises *melodia*, *euphonia* and *juddi*. The Sooty group includes *morphna*, *rufina*, *inexpectata* and *caurina*. The subspecies *merrilli* is somewhat intermediate between the Eastern and Sooty forms, but much more like the former.

42. In Canada, the *oreganus* group includes the subspecies *shufeldti* and *montanus*. To date, all reports and specimens of White-winged Juncos for Canada have proven to be aberrant Slate-colored Juncos with white wingbars.

43. Red Crossbill taxonomy and nomenclature are hopelessly confusing. The checklist follows Godfrey (1986) who uses subspecific names found in most of the literature. In the checklist, the subspecies *bendirei* includes *benti*. Recent studies by Groth (1993) indicate the North American forms of the Red Crossbill comprise eight cryptic or hidden species, best identified in the field by their diagnostic vocalizations. They also differ in colour, size, bill size and cone preferences. Read the excellent comments of DeBenedictis (1995) on Groth's monograph. Refer also to Groth's Web Site to hear the calls and learn more about Red Crossbills. <http://research.amnh.org/ornithology/crossbills/>.

ACKNOWLEDGEMENTS

I am grateful to Peter Burke, Bill Crins, Jon Dunn, Earl Godfrey, Michel Gosselin, Jean Iron, Ross James, Henri Ouellet, Ron Tozer and Mike Turner for advice, but the final choices of the forms to include in the checklist are mine.

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