

# *Identification Field Guide to the Geese of the Willamette Valley and Lower Columbia River*

*Second Edition*



**Kelly Warren**

*Wild Spirit Resources LLC*

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to the Geese of the Willamette Valley  
and Lower Columbia River**

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*By*

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# TABLE OF CONTENTS

Table of Contents.....	3
Acknowledgments .....	5
Dedication: Dr. Charles Edward Warren .....	5
Photo and Illustration Credits.....	5
1. Introduction.....	6
2. Identification Parameters .....	9
Hunters Tips .....	10
3. Cackling and Canada Goose Identification .....	11
Cackling Goose (Cackler) .....	11
Description.....	11
Distribution.....	20
History .....	21
Behavior.....	21
Management .....	21
Future.....	22
Aleutian Goose (Aleutian) .....	23
Description.....	23
Distribution.....	25
Behavior.....	26
Management .....	26
Future.....	26
Taverner’s Goose (Taverner’s) .....	27
Description.....	27
Distribution.....	33
Behavior.....	34
Management .....	34
Future.....	34
Lesser Canada Goose (Lesser) .....	35
Description.....	35
Distribution.....	42
Behavior.....	43
Management .....	43
Future.....	43
Dusky Canada Goose (Dusky) .....	44
Description.....	44
Distribution.....	53
History .....	54
Behavior.....	54
Management .....	55
Future.....	55
Vancouver Canada Goose .....	56
Description.....	56
Distribution.....	56
Behavior and Management .....	56
Western Canada Goose (Western, Honker or Great Basin) .....	57

Description.....	57
Distribution.....	63
History .....	63
Behavior.....	64
Management .....	64
4. Other Goose Species in the Willamette Valley and Lower Columbia River.....	65
Greater White-Fronted Goose .....	65
Description.....	65
History .....	69
Behavior.....	69
Future.....	69
Lesser Snow Goose .....	70
Description.....	70
Behavior.....	70
Management .....	70
Future.....	70
5. Comparing Goose Subspecies .....	72
6. Neck Collar Photos .....	79
Sources of Information and Photos.....	83



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### ***Dedication: Dr. Charles Edward Warren***

This guide is dedicated to my grandfather and friend Dr. Charles Edward Warren. From the beginning of his life till the end, he lived in the outdoors, hunting, fishing and taking care of nature and its splendor. He never left a job unfinished. He made a difference through his hundreds of students or anyone who had a chance to meet him. This is to the man who knew what was right in nature and the world. He was the one who taught me all that I know about nature. His character, exuberance, lessons, and passion for family, students and nature will never be forgotten.

### ***Photo and Illustration Credits***

All photos and illustrations by Kelly Warren except:

- Figure 1 by Dan Portman, based on a map by Pacific Flyway Council
- Figures 45, 46 and 110 courtesy of Dave Smith Decoys
- Figures 22 courtesy of U.S. Fish and Wildlife Service
- Figure 62 courtesy of Bryan Stone
- Figure 107 courtesy of Evan Alcantara
- Figure 127 courtesy of Brad Cochran

# 1. INTRODUCTION

Oregon's Willamette Valley and the lower Columbia River region of both Oregon and Washington host seven subspecies of cackling and Canada Geese as well as other species of geese:

- Cackling goose (*Branta hutchinsii minima*)
- Aleutian goose (*B. hutchinsii leucopareia*)
- Taverner's goose (*B. hutchinsii taverneri*)
- Lesser Canada goose (*B. canadensis parvipes*)
- Dusky Canada goose (*B. canadensis occidentalis*)
- Vancouver Canada goose (*B. canadensis fulva*)
- Western Canada goose (*B. canadensis moffitti*)
- Greater white-fronted goose (*Anser albifrons*)
- Lesser snow goose (*Chen caerulescens caerulescens*)

For clarity and simplicity, this field guide generally references common names for the goose subspecies rather than their official species and subspecies designations.

The Willamette Valley and lower Columbia River are included in a special management zone (Figure 1) created in 1986 by the Oregon Department of Fish and Wildlife (ODFW), the Washington Department of Fish and Wildlife (WDFW), the Pacific Flyway Council, and the U.S. Fish and Wildlife Service (USFWS), primarily to protect the dusky Canada goose (dusky), whose population had declined significantly from historical

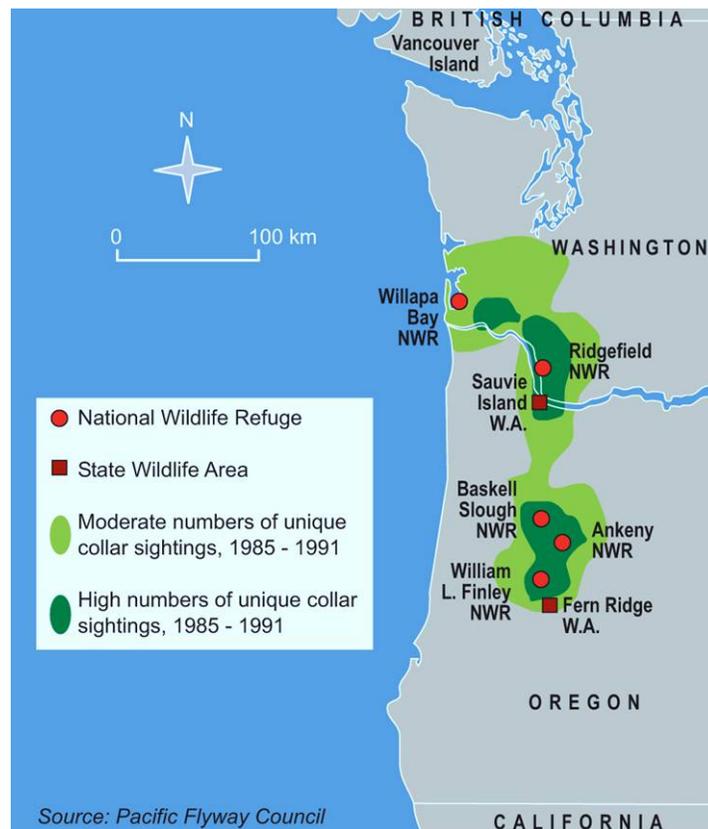


Figure 1: Winter use areas of dusky Canada geese.

levels. In this field guide, this special management zone is referred to as the “Permit Zone.” At the time of creation of the Permit Zone, the Taverner’s and lesser goose, as well as other Canada goose populations, were becoming more numerous in the region. Regulations exist to minimize the harvest of dusky while supporting harvest of more abundant geese. Some legal geese, however, are easily confused in the field with the dusky. Hunters are required to take an examination to test their ability to identify the various goose species and subspecies before receiving a permit to hunt within the Permit Zone. Only hunters who successfully pass the examination with a score of at least 80% will receive a permit to hunt geese in the Permit Zone.

Farmers, waterfowl hunters, and wildlife managers in the Permit Zone are faced with problems for which there are no simple solutions. Several factors have combined to create almost unsolvable difficulties:

- Abundant numbers of Canada geese depredate (damage) agricultural crops and pastures during winter and spring months.
- Some subspecies of geese that make up the wintering population require special protection and management efforts to help them recover.
- Many subspecies look generally alike. This creates difficulty for hunters who are asked to harvest some subspecies but not others, and an equally difficult problem for wildlife managers who must regulate hunting to ensure protection for subspecies that need special consideration.

The hunting program in the Permit Zone has been successful in helping to conserve the dusky by educating hunters to recognize and harvest other subspecies. This is especially important in the face of ongoing agricultural crop depredation caused by large numbers of wintering geese. From 1985/86 to the 2014/15 waterfowl season harvested geese were brought to an ODFW or WDFW check stations to allow personnel to determine the subspecies. Check station personnel measured various parameters including age, sex, tarsus (leg) length, culmen (bill) length, and color. A classification of a dusky is based on a legal definition based on breast color and culmen length.

New regulations for the 2015/16 season no longer require hunters to bring harvested birds to check stations. However, Dusky Canada geese are now illegal to shoot in all of NW Oregon, making proper identification even more important. Classification of dusky geese will

be done by law enforcement in the field. If a hunter harvests a goose and law enforcement determines it is a dusky the hunter will be issued a citation and lose their permit for the remainder of the hunting season. Please see the regulations for more details on the changes to goose hunting in NW Oregon. Unfortunately, some lines among the subspecies in nature are blurred. Use of strict identification parameters can result in the inclusion of geese that are not dusks in the dusky category. But vice versa, some dusks are classified as other subspecies. Some hunters who shoot dusks do not lose their hunting privileges because the birds may fall under the western or Taverner's/lesser definition. However, in all training and educational materials, hunters are asked to not shoot the larger, dark-colored birds that may be dusks. Hunters are also advised not shoot a goose whenever in doubt about identification.

This guide is aimed at providing hunters and other interested persons with useful tools in identifying the various species and subspecies of geese in the Willamette Valley and lower Columbia River. This guide should also be used in conjunction with annual hunting regulations for the Permit Zone published by ODFW and WDFW. If the hunting community can prove its ability to show restraint, take the time to learn goose identification in the field, and follow all regulations, we can assist in controlling goose populations and conserving subspecies of special concern. This is definitely a win-win situation. To take these issues lightly will mean failure and the reduction or loss of hunter opportunity in the future. All of us are important partners in these management endeavors.

## ***2. IDENTIFICATION PARAMETERS***

**G**eese vary widely in their body size, wing shape, body length, color, and bill (culmen) length. ODFW, WDFW, and the USFWS have established a set of parameters for identification of dusky Canada geese based on breast plumage color and culmen length. A goose is considered to be a dusky if the plumage color matches a five or less on the Munsell soil color chart, **and** has a 40 to 50 mm culmen length. In addition, a cackling goose is determined by a culmen length of less than 32 mm. Other size, length, and color parameters are presented in the individual subspecies descriptions in this field guide.

Biologists have put plastic colored neck collars with identifying codes on some geese. Collar color has been standardized to allow biologists to easily identify the subspecies and where the bird was collared. Collar colors seen in the Willamette Valley and lower Columbia River are as follows: green or red (dusky), blue or grey (Aleutian goose, lesser Canada goose), yellow (cackling goose), white or black (western Canada goose).

Hunters must be able to identify geese both on the ground and in the air. Birds silhouetted against the sky or in different lighting can appear to be much darker or lighter than their typical color. This guide includes pictures of birds in both circumstances to aid in identification. In addition, the guide presents pictures of mixed flocks of geese to allow the reader to distinguish among the species and subspecies.

## Hunters Tips

- Dusky's tend to fly low and drop right into decoys, so be aware if you see this behavior.
- Let birds get close. Birds at a distance are more difficult to identify. Use binoculars as geese approach to assist you in proper identification.
- Look for geese with a distinct break between the black neck and breast feathers.
- Pay attention to differences in wing shape and neck length.
- Listen to voice differences in the larger and smaller subspecies.
- If there is any question of the subspecies do not shoot.
- If a bird is collared look for yellow, white or blue and avoid red.
- It may be beneficial for hunters to target cackling geese to avoid making mistakes on medium/large Canada geese that may have characteristics/features of Dusky's.
- Be careful of mixed flocks and make sure you identify the solitary bird you are shooting at.
- Remember that all geese may have a white neck ring, ranging from a few white feathers to a complete ring. Therefore, you must consider all identification factors including behavior, voice, color, and size.
- Culmen (bill) length is a way to identify geese in hand but is not a reliable way to identify geese in flight. The techniques listed above are the best way to identify geese in flight.
- Review this field guide and regulation materials regularly.

### 3. CACKLING AND CANADA GOOSE IDENTIFICATION

#### *Cackling Goose (Cackler)*

##### **Description**

- Very small goose, similar to the size of a mallard, slightly larger.
- Breast dark brown, sometimes with a white neck ring. Juveniles are generally lighter in color. If collared, the collar is yellow.
- Culmen (bill) length of less than 32 mm. Head appears “puffy.”
- Vocalizations are high-pitched yelps.
- Fast wing beat in comparison to larger subspecies.



Figure 2: Cackling goose.



*Figure 3: An adult cackling goose with a white neck ring.*



*Figure 4: A group of cackling goose adults (darker-colored birds) and juveniles (lighter-colored birds).*



Figure 5: Yellow-collared adult cackling goose with other adults.



Figure 6: Large groups of cackling geese showing darker color variations in different light conditions.



Figure 7: Darker and lighter cackling geese.



Figure 8: Cackling geese on a sunny day; notice stubby neck and bill as well as dark brown breast.



*Figure 9: Cackling geese in close; in this situation, vocalization and whether or not stubby features are present can be the key to proper identification.*



*Figure 10: Cackling goose in flight; notice stubby neck and bill.*



*Figure 11: Cackling geese in flight; notice dark breast, which has little contrast with neck color.*



*Figure 12: Flock of cackling geese; notice color variations and white neck rings*



*Figure 13: Alert cackling geese; notice wide contrast in color variations*



*Figure 14: Cackling goose; notice stubby neck and culmen (bill)*



*Figure 15: Cackling geese in flight*



*Figure 16: Cackling goose in flight; notice length of wings in contrast to the body.*



*Figure 17: Flock of cackling geese landing.*



Figure 18: Cackling geese taking flight; notice the length of wings, which are very long and not in proportion to the body.



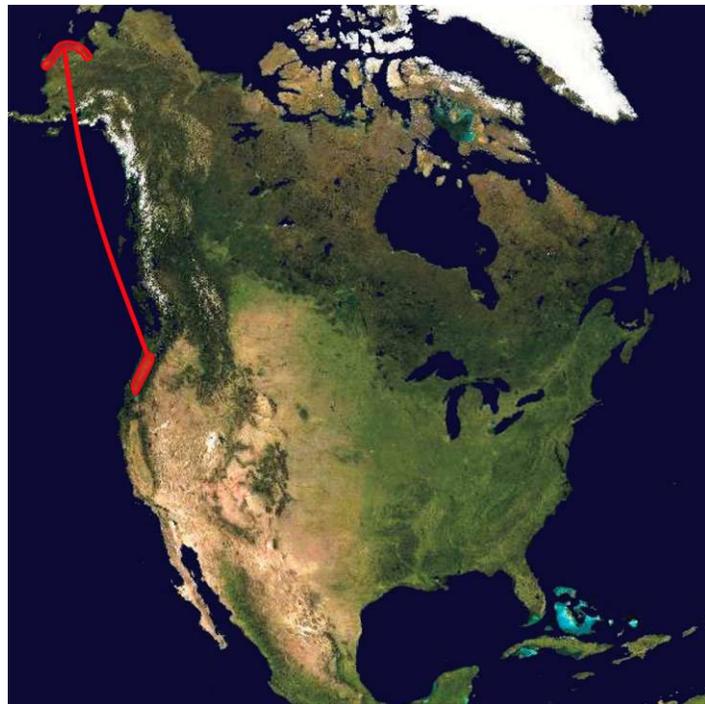
Figure 19: Cackling geese in flight.



*Figure 20: Cackling geese typically fly in large flocks.*

## Distribution

Cackling geese breed in western Alaska (Figure 21) in a narrow fringe along the coast, mainly between the Yukon and Kuskokwim Rivers. They migrate to the Pacific Northwest to winter.



*Figure 21: Distribution of cackling geese.*

## History

Numbers of this subspecies dropped precipitously from about 400,000 in the late 1960s to fewer than 25,000 in the mid-1980s. The decline is believed to be due to a combination of subsistence harvest in Alaska and sport harvest on the wintering grounds, mainly in California.

The cackler was an infrequent resident in the Willamette Valley and lower Columbia River before the 1990s, previously spending winters in the Central Valley of California. Ninety-five percent of the cackler's population now winters in this region. Large swings in population size have occurred, with as many as 400,000 cacklers existing in the late 1960s to a low of about 20,000 birds in the mid 1980s. Their shift to the Willamette Valley and lower Columbia River occurred as the population rebounded from the low numbers of the 1980s, and by 1997 there were about 200,000 geese wintering here. Since that time, the population has experienced a downward trend and in recent years the number of cackling geese has been stable at 150,000. This is the one subspecies that has contributed to an overall increase of wintering geese in this region during recent years.

## Behavior

Cacklers typically fly in groups of 40 or more birds. They prefer wide-open areas such as large grass fields and open sheet water but have adapted to urban park habitats in Salem and Portland, Oregon. They are very wary and tend to fly higher than other subspecies.

## Management

The flyway population goal for this goose is 250,000. While production on the breeding grounds may vary from year to year, it is likely that predation, subsistence harvest, and sport harvest in Alaska, Washington, and Oregon influence population growth the most.

Subsistence harvest, the taking of animals by native peoples for food and survival, is an important cultural need in some regions of Canada and Alaska. This practice is recognized by wildlife management agencies, and cooperative agreements are important to protect shared wildlife populations. The cackler is one subspecies taken in substantial numbers by subsistence hunters on the Yukon-Kuskokwim (Y-K) Delta of western Alaska. The Y-K Delta Goose Management Plan, signed by all coastal states, the USFWS, and Alaskan subsistence hunters, calls for restrictions on both the breeding and wintering grounds to protect cackling,

white-fronted, emperor, and black brant geese. State and federal harvest management for all geese on the wintering grounds must be weighed against the needs of subsistence users.

## **Future**

With careful management, the future of the cackler is considered bright, and the population should increase toward flyway objectives. Management approaches are taking into account the need for fair and equitable bag limits among all users on the breeding and wintering grounds. Cackler management will continue to be complex as managers try to reach the population objective, balance sport hunting opportunities and harvest by subsistence hunters, and reduce agricultural depredation (crop damage) in Oregon and Washington.

## *Aleutian Goose (Aleutian)*

### **Description**

- Broad white neck ring around the lower neck (Figures 22 and 23). Cheek patches separated by black feathers. Breast dark with a purplish cast.
- If collared, the collar is blue or grey.
- Culmen: length between 32-38 mm.
- Head appears large and “blocky” compared to other geese.



*Figure 22: Aleutian goose.*



*Figure 23: Aleutian goose showing broad white neck ring and purplish breast color.*



Figure 24: Aleutian goose (top left) with lesser Canada geese.

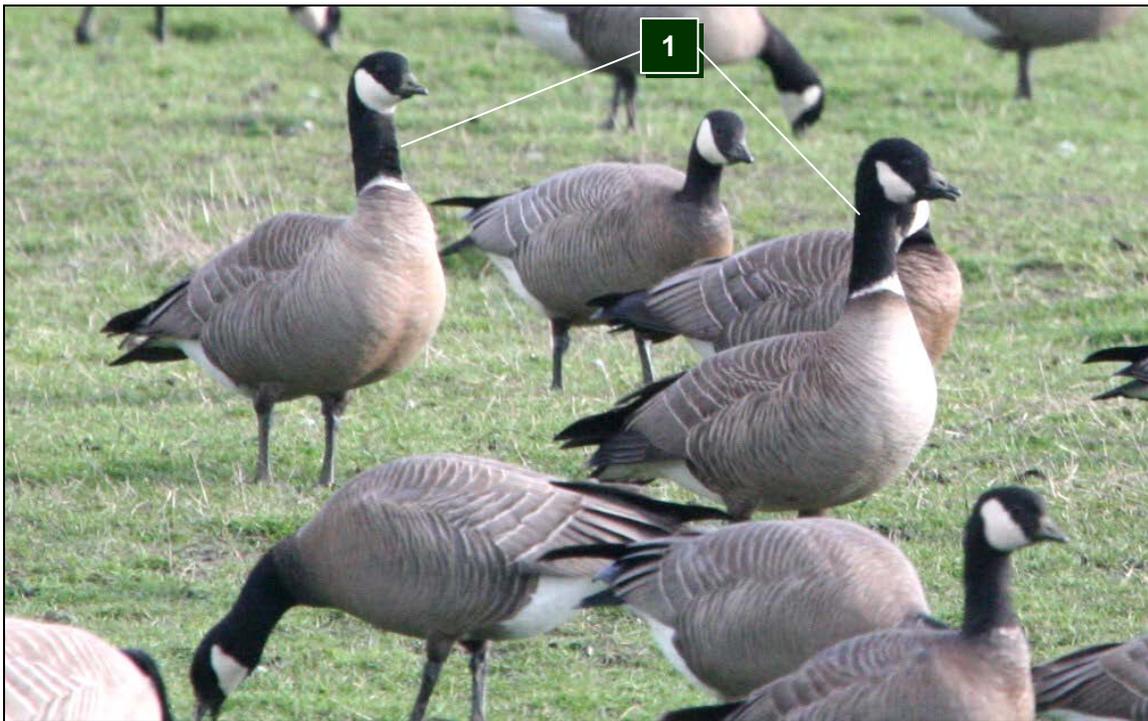


Figure 25: Aleutian geese (1); notice significant white neck rings and slightly larger size and lighter color than cackling goose in background.



Figure 26: Aleutian geese in flight.



Figure 27: Aleutian geese in flight; notice white neck ring apparent on all birds.

## Distribution

Aleutian geese nest in the Aleutians Islands of Alaska and primarily migrate along the Oregon Coast to wintering grounds in California (Figure 28). There is an extremely small breeding segment established on the Semidi Islands in the Gulf of Alaska, which winter mainly in Tillamook County, Oregon.



Figure 28: Nesting areas and migration route for Aleutian geese.

## Behavior

Aleutian geese are rarely found in the Willamette Valley and lower Columbia River. In Oregon and Washington, they are more likely to be found along the coast. If present, they are commonly found in mixed flocks with cackling and Taverner's geese.

## Management

Aleutian geese were put on the endangered species list in 1967 because of extremely low population numbers. At the time of federal threatened and endangered species delisting, their population had reached a sustainable level of 60,000 to 70,000. The current population level is above 115,000. Hunting was allowed in 2005-2006 in Oregon for the first time in more than 50 years.

Management efforts have primarily concentrated on eliminating introduced foxes from the islands in the Aleutians where Aleutian geese breed and nest. Geese were also relocated to islands with smaller bald eagle populations to reduce predation.

Because of the rapid expansion of this population and increasing depredation issues, Oregon and California are evaluating new harvest strategies that include late season hunting. Beginning in 2006, Oregon and California received approval for late season hunting in February and early March. In the future, potential new harvest strategies will likely occur outside the Permit Zone as Aleutians are not common.

Tillamook County, Oregon, which was previously treated as a closed area of the permit zone, was recently opened to permit goose hunting. Coastal areas of this county may hold large numbers of migrating and wintering Aleutian geese.

## Future

The recovery of the Aleutian goose is a success story of the federal Threatened and Endangered Species Act. Their population is over 115,000 geese and this number is expected to continue increasing. This growth has placed new demands on wintering and migration habitat, which has led to increasing incidences of agricultural depredation. Future management of the Aleutian population will continue to be complex as managers try to balance the needs of the growing population with tolerable levels of agricultural depredation.

## *Taverner's Goose (Taverner's)*

### **Description**

- Lighter in color than the cackler, lesser, dusky, and Vancouver geese, often appearing silvery.
- Continuous white cheek patch under chin.
- Culmen length between 32 mm and 40 mm
- Smaller than the dusky, Vancouver and western. About the same size as the lesser and larger than the cackler.
- In flight the Taverner's tends to have narrower wings than the dusky.



Figure 29: Taverner's goose.



Figure 30: Taverner's geese; notice the silver color breast.



Figure 31: A Taverner's goose (top) with two cackling geese; the silvery color of the Taverner's breast can be seen here.



*Figure 32: Group of Taverner's geese; notice that features, including bill and neck, are stubby but slightly larger than cackler.*



*Figure 33: Taverner's geese; notice light breast color with significant color variation between neck and breast.*



*Figure 34: Taverner's geese that are dark, but are still lighter and smaller than dusky Canada geese.*



*Figure 35: Typical Taverner's geese; notice the light breast color that contrasts sharply with the neck.*



*Figure 36: Taverner's goose in flight; notice narrow wings, which make the tail appear longer.*



*Figure 37: Taverner's goose in flight; notice the narrow wings and body shape.*



Figure 38: Taverner's geese in flight; notice color variations and longer tail.



Figure 39: Taverner's geese in bright light, which make them appear nearly white.



Figure 40: A flock of Taverner's geese; notice light breast color, even in low light.



Figure 41: A flock of Taverner's geese; notice light breast color, which contrasts sharply with neck color.

## Distribution

Taverner's geese nest throughout western Alaska from the arctic to the Yukon River delta (Figure 42). Primary wintering areas in the flyway include the Willamette Valley and lower Columbia River region.



Figure 42: Nesting areas and migration route for Taverner's geese.

## **Behavior**

Taverner's geese often fly in family groups or mixed into groups of other subspecies, but frequently occur in large flocks. They roost and rest on water and feed in open fields, and are among the most difficult geese to lure with decoys. The recent emphasis on hunting cackling geese has shifted harvest away from Taverner's geese, because cacklers are more readily identified by most hunters.

## **Management**

The Taverner's population is considered to be stable, although accurate wintering counts are not possible. This subspecies is also the least known of the geese found in this area. Alaskan biologists have found that the Taverner's geese are difficult to monitor or band because their breeding distribution is so large. This is one of the subspecies managers would like hunters to target.

## **Future**

The future is considered bright for the Taverner's goose and its population is considered to be stable.

## *Lesser Canada Goose (Lesser)*

### **Description**

- Breast color variable from light gray to dark gray and some birds can be very similar color to that of a dusky.
- Neck collar colors are blue; colored leg bands can be white or green.
- Size similar to Taverner's goose and dusky; much larger than cackling goose
- Culmen length between 32 mm and 40 mm



Figure 43: A group of lesser Canada geese showing wide variations in color.



Figure 44: Lesser Canada goose flock in low light conditions; notice longer neck.



Figure 45: Dark lesser Canada geese; **Note:** Hunters should typically avoid shooting a medium-sized goose with this breast color.



Figure 46: A very dark lesser Canada goose; **Note:** Hunters should typically avoid shooting a medium-sized goose with this breast color.



Figure 47: Probable dusky Canada goose (1), lesser Canada goose (2) and cackling goose (3).  
**Note:** Hunters should avoid shooting birds with a breast color of Bird 1.



Figure 48: Lesser Canada geese (1) and cackling geese (2).



Figure 49: Lesser Canada geese; note the long neck in proportion to the body as well as wide variation in color.



Figure 50: Lesser Canada geese with single cackling goose second from right, top left bird is dark for a lesser.



Figure 51: Mixed group of lesser Canada geese and cackling geese; notice the lessers' wide color variation and their large size compared to the cacklers.

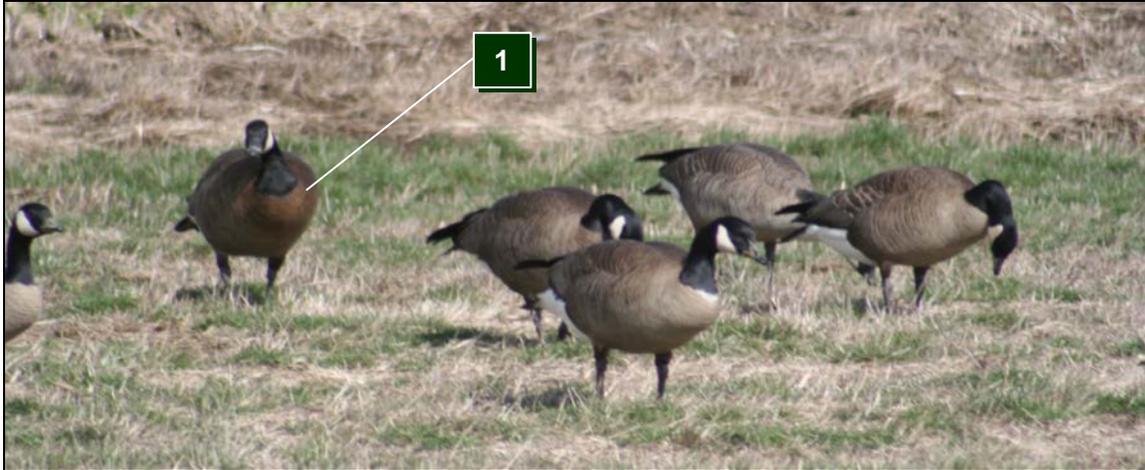


Figure 52: Hunters should avoid shooting a medium-sized goose (Bird 1) with this breast color.



Figure 53: A pair of lesser Canada geese in flight; notice the color difference between the two.



Figure 54: Lesser Canada geese; notice long necks and range of colors.



Figure 55: Group of lesser Canada geese in flight with one cackling goose (behind the blue-collared lesser).



Figure 56: Lesser Canada geese with wide variations in color; avoid mid-size dark birds like most of these; shoot only lighter colored birds of this size.



*Figure 57: Lesser Canada geese in flight behind three cackling geese.*

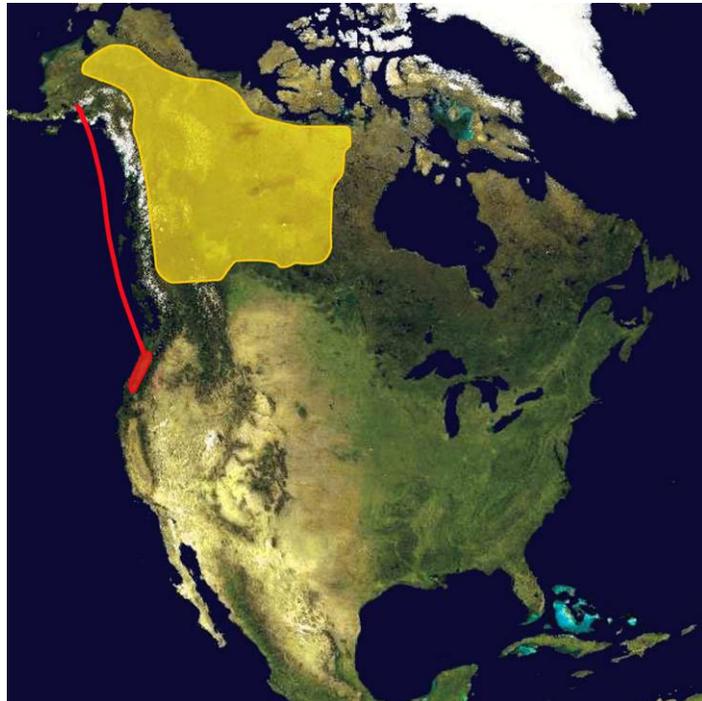


*Figure 58: Lesser Canada geese in flight; notice light breasts, which sharply contrast with dark neck.*



*Figure 59: Lesser Canada geese in flight; notice longer necks and light breasts, which sharply contrast with dark neck.*

## Distribution



*Figure 60: Nesting area and migration route for lesser Canada geese; red line is the Anchorage, Alaska population that winters in the Willamette Valley; yellow is the remainder of the breeding population range.*

## **Behavior**

Lesser Canada geese prefer open areas, including water bodies. They are commonly found in mixed flocks with Taverner's, cacklers, and dusks. Lessers tend to fly higher than other subspecies and usually fly in family groups.

Lesser Canada goose populations have been very successful and adapt well to changing environments. Their population is healthy and has been increasing for the past decade. There are many different populations of lessers and these different populations carry certain characteristics that distinguish them from one another.

The lesser nests from interior and northern Alaska eastward into the Yukon Territory over a widely dispersed area. Subsistence harvest is not significant.

## **Management**

The lesser Canada goose population is considered healthy, although wintering counts are not available. This subspecies has been very successful in adapting to changing environments and may be found in urban areas. The population in Anchorage, Alaska, has increased in recent years and has become a nuisance in some areas. Recently implemented urban goose management programs have lowered the Anchorage nesting population. Many marked geese from the Anchorage area winter in select areas of the Willamette Valley. Efforts are underway to better delineate the breeding range of lesser Canada geese in Alaska.

## **Future**

The lesser population is considered to be stable, due to relative stability in breeding areas.

## *Dusky Canada Goose (Dusky)*

### **Description**

- Dark-colored; often with little color differentiation between neck and head. A few birds may have a neck ring. Color is a 5 or less on the Munsell soil color chart. Collar colors are red or green.
- Culmen length 40 mm to 50 mm.
- Generally broader in appearance, including broader wings, than Taverner's or lesser.
- Dusky's are smaller than western and Vancouver Canada goose subspecies. They are larger than Taverner's, cacklers, and lessers.
- Dusky's are most commonly mistaken for Taverner's and cacklers due to similarities in size and body shape and coloration.
- If a bird seems unwary, comes right in, flies low, etc., be cautious, this is common behavior for a dusky.
- Dusky's have a deep moaning call similar to a western.



Figure 61: Dusky Canada geese.



Figure 62: Dusky Canada geese behind decoys.



Figure 63: Duskys in flight; note dark brown breasts sharply contrasting with white bellies.



Figure 64: Sunlight can make duskys appear much lighter; notice red neck collar on third goose from the right.



Figure 65: Red-collared dusky Canada geese.



Figure 66: Dusky Canada goose in front of western Canada geese.



*Figure 67: Dusky Canada goose in flight; note the broad wings and little contrast between breast and neck.*



*Figure 68: Very light dusky Canada geese with red neck collars*



*Figure 69: Three dusky Canada geese (foreground) with cackling geese; notice the size of the duskys compared to the cacklers.*



*Figure 70: Typical dark dusky Canada geese.*



*Figure 71: Dusky Canada goose in flight; notice the distinction between the white rear and dark breast, and little distinction between the neck and breast.*



*Figure 72: Dusky Canada geese and two Taverner's geese (1) (above and to the right of the two red-collared duskys).*



Figure 73: Dusky Canada geese in flight; notice chocolate brown breasts.



Figure 74: Light-colored dusky Canada geese; notice long necks and broad wings.



Figure 75: A flock of dusky Canada geese in flight.



Figure 76: Dusky Canada geese; notice longer culmen (bill) and long necks.



Figure 77: Dusky Canada geese; notice dark breasts merge with black necks.



*Figure 78: Dusky Canada geese in flight.*

## **Distribution**

The dusky nests primarily on the Copper River Delta in Alaska (see Figure 79). It is the only goose that winters almost exclusively in the Willamette Valley and lower Columbia River. A few birds winter on the Oregon coast.



*Figure 79: Migration route of the dusky Canada goose.*

## History

The dusky has very specific habitat preferences and a limited geographic breeding range, and for these reasons their population has always been small. The 1964 earthquake in Alaska uplifted the Copper River Delta, the primary breeding ground for duskys, by 2 to 6 feet, drastically altering the frequency of tidal inundation and promoting drying of slough banks and meadow. The drier conditions and lack of suppression by saltwater prompted a growth of shrubs such as alder and willow that are now 10 to 20 feet tall and extend over much of the delta. Reduced salinity is also thought to have altered nutrient levels and aquatic productivity, possibly affecting food resources for adult geese and their broods.

During the past 30 years, increased predation by brown bears, wolves, coyotes and bald eagles has had a major impact on dusky production, although the intensity is variable from year to year. Subsistence harvest of duskys is not an issue. Thus, the productivity of dusky Canada geese is being affected by gradual long-term habitat changes, annual conditions such as weather, increased levels of predation, and an increasing average age of the population. Canada geese generally do not nest until their third year of life.

Middleton Island, located in the Gulf of Alaska about 60 miles offshore from the Copper River Delta, currently has approximately 1,500 breeding dusky geese. The island has likely reached its carrying capacity, but it remains an important breeding area because the geese breeding there do not suffer from the depressed productivity the Copper River Delta dusky geese face.

Prior to the 1970s, duskys made up the vast majority of the fewer than 25,000 Canada geese that wintered in the region. However, beginning in about 1979 the dusky population began to sharply decline while the population of other subspecies, especially Taverner's and westerns, increased. The overall dusky population reached 10,000 to 14,000 birds in the mid-1990s and is currently considered stable at about 16,000. This management success has been the result of efforts to increase production on the breeding grounds in concert with harvest regulation within the Permit Zone.

## Behavior

This subspecies is relatively unwary and prefers habitat characterized by enclosed areas such as small ponds and small fields lined with trees. It flies low and is easy to lure to decoys, making it an easy target for hunters.

## Management

Many actions are underway to improve dusky production. Cooperative efforts between the Chugach National Forest, Ducks Unlimited, and fish and wildlife agencies have created over 500 artificial nest islands on the delta in the attempt to provide secure nest sites away from brushy corridors most heavily used by predators. Use of these structures is gradually increasing, and so far nesting success has been higher for birds using the structures than those using traditional nest sites. Use of nest islands by geese is a learned experience, and the degree to which this program will help improve production will be seen in the years ahead. Ways to deal with predation have been explored thoroughly by the Alaska Department of Fish and Game, and some steps have been taken (liberalization of regulations affecting coyote harvest and translocation of bears); however, truly effective measures to limit predator losses are either prohibitively expensive or socially unacceptable. Cutbacks in Alaska hunting seasons have also occurred, including bag limits and season length.

## Future

The limited number of dusky Canada geese was the reason for the creation of the Permit Zone, which has been successful in helping to maintain and even increase the survival rates of duskys. However, the future of the dusky is still uncertain. The subspecies' narrow habitat preferences and restricted geographic range make it susceptible to changes in management and environmental disruption. Numerous management activities will continue to focus on this subspecies of concern. In the meantime it is critical that the dusky harvest stay at low levels.

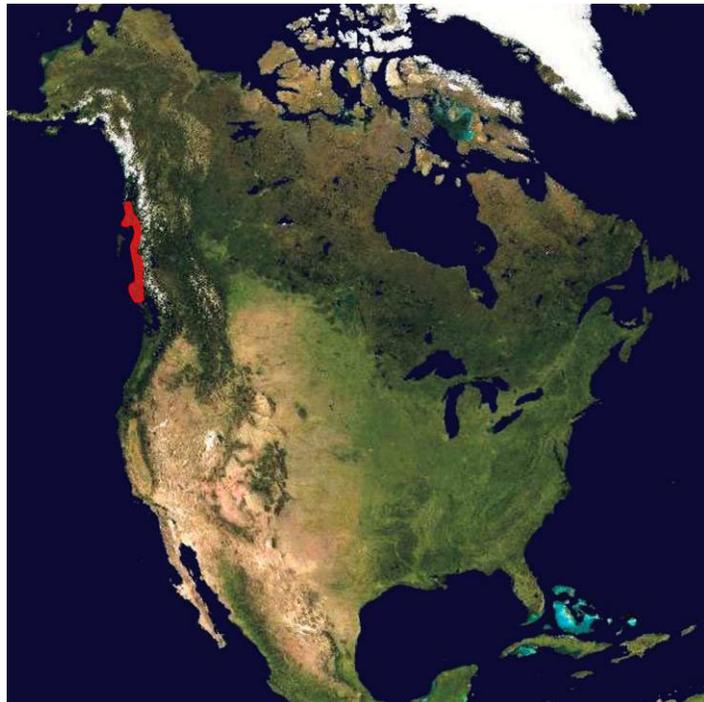
## *Vancouver Canada Goose*

### **Description**

- Color is dark and similar to dusky.
- Culmen length 50 to 60 mm
- The Vancouver is of comparable size to the western.

### **Distribution**

Vancouver Canada geese are found primarily along the coast of British Columbia and Southeast Alaska (Figure 80). A few birds range into Oregon and Washington.



*Figure 80: Range of Vancouver Canada geese.*

### **Behavior and Management**

Limited information is known about the behavior, population, and geographic distribution of the Vancouver Canada goose. These birds breed and nest in coastal forested areas. It is thought that they do not migrate long distances. They are very secretive, and because of the inaccessibility of their range harvest is thought to be low.

The current population level is unknown and it is not known if they are present in the Willamette Valley or along the lower Columbia River in any appreciable numbers. Their physical similarity to dusky Canada geese ensures that the harvest of Vancouver Canada geese will continue to be minimal in the Permit Zone. However, every year hunters in the Permit Zone harvest geese that are classified as Vancouver Canada geese.

## *Western Canada Goose (Western, Honker or Great Basin)*

### **Description**

- Generally lighter in color than other Canada and cackling subspecies. White neck ring not common.
- If collared, the collar color is black or white; colored leg bands can be white or green.
- Culmen length >50 mm.
- Wing beat is usually slow compared to other goose species; neck is long in relation to body length.
- Largest of the geese in the permit zone.



Figure 81: Western Canada goose.



Figure 82: Western Canada geese are light in color.



*Figure 83: Western Canada geese.*



*Figure 84: Western Canada geese in flight; notice long necks and whitish breast.*



Figure 85: Western Canada geese; notice silver white breast with long neck and long culmen (bill).



Figure 86: Western Canada geese silhouetted in flight; note long neck and broad wings.



Figure 87: Western Canada geese in flight; notice light color, broad wings and long neck.



Figure 88: Western Canada geese in flight; notice sharp distinction between neck and breast color.



Figure 89: Western Canada goose feeding.



*Figure 90: Western Canada goose; notice bright silver color.*



*Figure 91: Group of western Canada geese.*



*Figure 92: Western Canada geese in flight; notice long necks.*



*Figure 93: Western Canada goose; notice light color.*



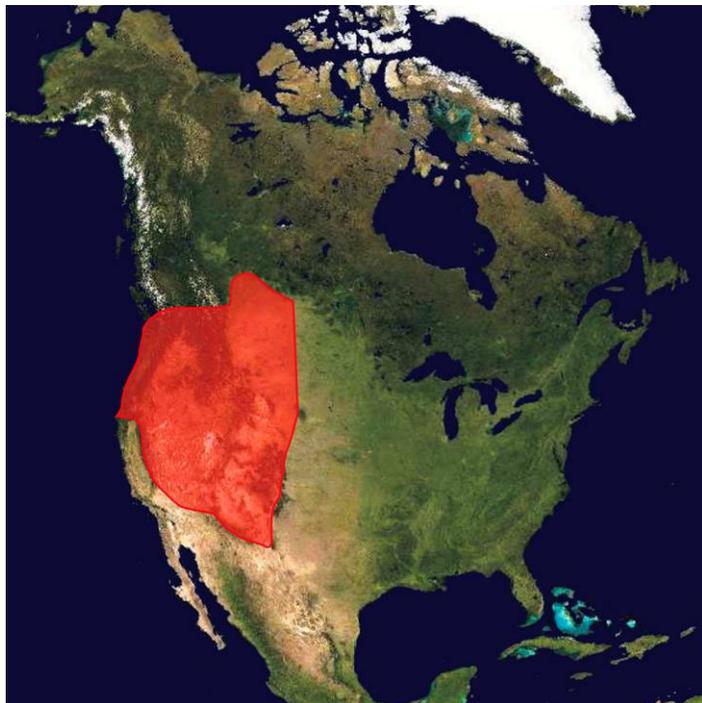
*Figure 94: Group of western Canada geese; notice color differences between individuals.*



*Figure 95: Group of western Canada geese in flight.*

## **Distribution**

Western Canada geese are the only Canada goose subspecies that nest in Oregon and Washington. Westerns also migrate to the region from several other states and provinces (Figure 96).



*Figure 96: General range of western Canada geese.*

## **History**

Westerns are the only native breeding geese in Oregon and Washington. These geese were not originally found in western Oregon and Washington, but spread from east of the Cascades and were introduced by private aviculturists and wildlife managers. They are very common throughout most western states.

## Behavior

Western Canada geese are generally unwary and tend to occur in groups separate from other subspecies. They adapt well to habitat changes and have been especially responsive to urbanization; they are found on golf courses, in industrial parks, and around airports or any place with large expanses of lawn or fields. Westerns are found near natural and artificial lakes and ponds. As such, they have become a nuisance around the rye grass fields and golf courses in the Willamette Valley and along the lower Columbia River as well as in many parks and lakes within urban boundaries.

## Management

The number of westerns in the Willamette Valley and lower Columbia River increased substantially in the recent past. In response, managers have sought to reduce the population through increased hunting opportunity, such as special September Canada goose seasons. This strategy has resulted in a decrease in western Canada goose numbers in recent years. It is predicted that, with increasing urbanization, westerns will continue to be a management challenge in this area.

A small breeding group of dark breasted Canada geese occurs in the lower Columbia River areas of Oregon and Washington, and these geese have been the focus of increased banding and management efforts over the past ten years. Although they have measurements ranging from dusky to westerns, this group is considered to be western Canada geese, and many have been marked with white neck collars to distinguish them from other dark-breasted Canada geese during the hunting season.

## 4. OTHER GOOSE SPECIES IN THE WILLAMETTE VALLEY AND LOWER COLUMBIA RIVER

### *Greater White-Fronted Goose*

#### **Description**

- High-pitched call, sounds like a laugh or yodel.
- Pink or orange bill.
- Adults have black bars on breast and belly and white “front” behind bill.
- About the size of a Taverner’s or lesser.



Figure 97: White-fronted goose (center) with lesser Canada geese.



*Figure 98: White-fronted geese (three in foreground) and cackling geese.*



*Figure 99: White-fronted geese.*



Figure 100: White-fronted geese; adults have black markings on belly; juveniles lack marks.



Figure 101: White-fronted geese in flight; they are similar to lesser Canada geese in size.



*Figure 102: Juvenile white-fronted goose (left) with adult white-fronts.*



*Figure 103: Adult white-fronted geese in flight.*

## History

Populations of greater white-fronted geese, commonly known as specs or speckle bellies, found in the Pacific Flyway have fluctuated for the past several decades. Currently, the Pacific population is increasing and is above flyway management objectives. Most white-fronted geese winter in the Central Valley of California, but white-fronts are observed and harvested in the permit zone every year. Currently, they are not common in our region, but appear to be increasing. These birds breed in Alaska and are also taken by subsistence hunters.

## Behavior

White-fronted geese tend to prefer marsh/wetland areas for foraging over fields, but they can be found in both habitats. They are commonly found with other species of geese. White-fronted geese roost on water and often go out to feed during the day, a behavior similar to that of many goose subspecies.

## Future

The Pacific population of greater white-fronted geese is increasing in population due to favorable conditions in nesting areas. White-fronts are expected to continue increasing and may possibly become more numerous in the Willamette Valley and lower Columbia River, an area where they didn't historically winter.

## *Lesser Snow Goose*

### **Description**

- Adult lesser snow geese have white body with black wing tips. Juveniles are grayer in appearance with black wing tips.
- Adults have pink bills, legs, and feet and juveniles have gray-pink bills, legs and feet
- Lesser snow geese are about the size of a Taverner's or lesser.

### **Behavior**

Lesser snow Geese are one of the wariest birds. They tend to fly high and prefer to land with large flocks of geese already on the ground. Lesser snow geese are uncommon in the Willamette Valley and along the lower Columbia River, where they are usually found as singles within flocks of Canada goose subspecies. However, there is a wintering flock of up to several thousand geese in the lower Columbia River area near Sauvie Island, Oregon and Ridgefield National Wildlife Refuge, Washington in most years.

### **Management**

Most lesser snow geese present in the permit zone are from the Wrangel Island, Russia nesting population. Historically, this population has experienced large swings in numbers and currently numbers around 132,000, which is above the flyway management objective. Most of this population now winters in the Skagit area of Washington whereas historically most wintered in the Central Valley of California.

### **Future**

Wintering populations of lesser snow geese along the lower Columbia River have remained fairly constant for many years. It is not certain if more birds will winter in this region in the future or the current wintering grounds in Washington and California will be maintained. Unlike other white goose populations in North America, most Pacific white goose populations are not over-abundant but are at healthy levels.



Figure 104: Group of lesser snow geese.



Figure 105: Group of lesser snow geese in flight.



Figure 106: Adult and juvenile lesser snow geese; lesser snow geese are about the size of lesser Canada geese.

## 5. COMPARING GOOSE SUBSPECIES

The following set of photographs is included so that comparisons can be made among the various goose subspecies.



Figure 107: Cackling goose (left) and western Canada goose (right).

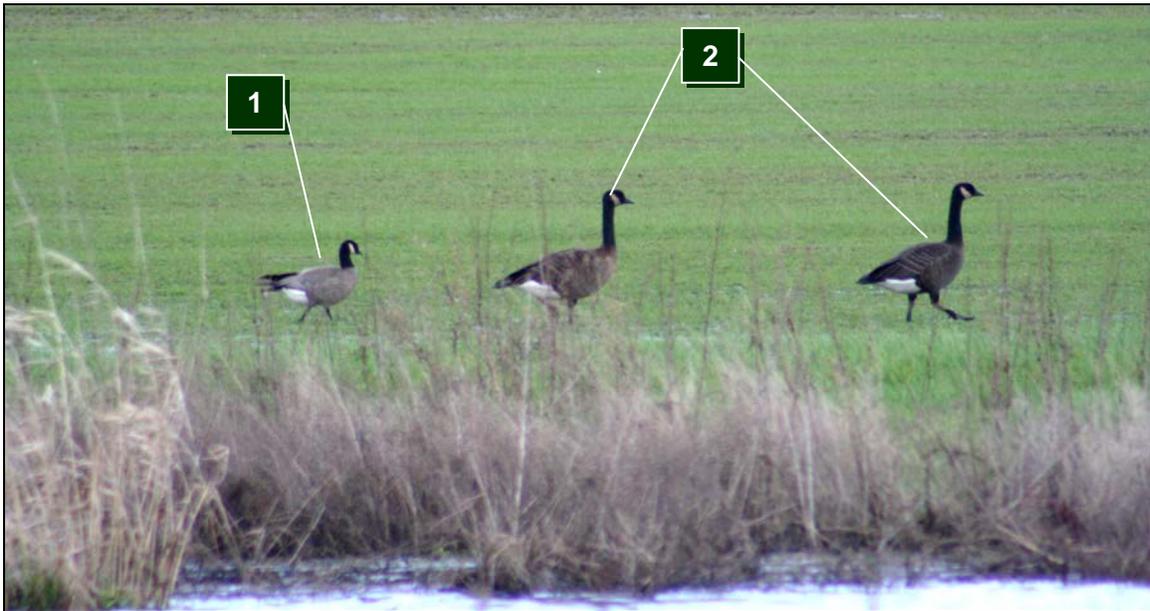


Figure 108: Cackling goose (1) with dusky Canada geese (2).

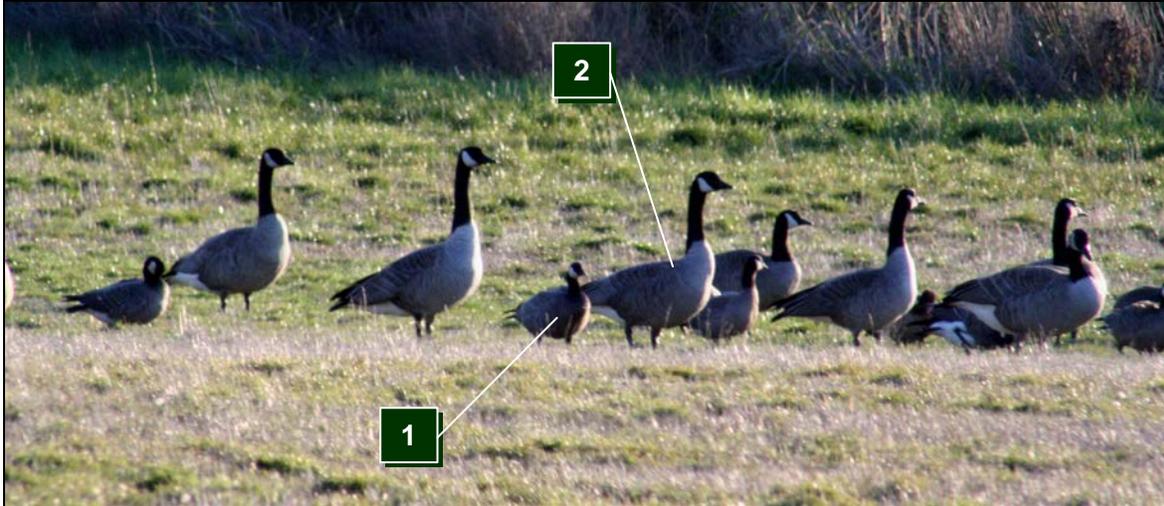


Figure 109: Cackling geese with western Canada Geese – 1) cackling goose; 2) western Canada goose.



Figure 110: Mallard duck and four subspecies of geese.

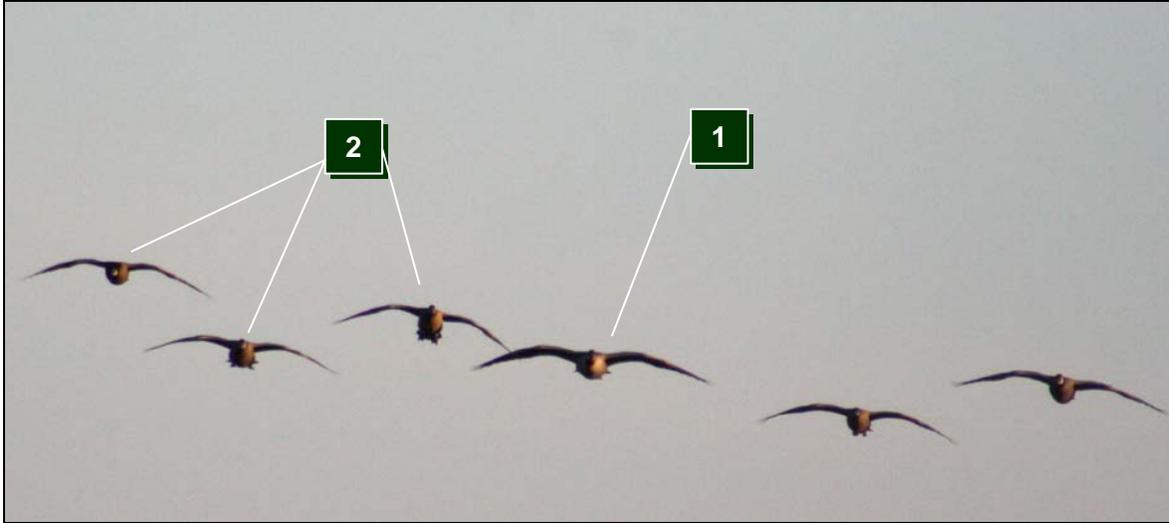


Figure 111: Taverner's goose (in center) with cackling geese – 1) Taverner's goose; 2) cackling geese.

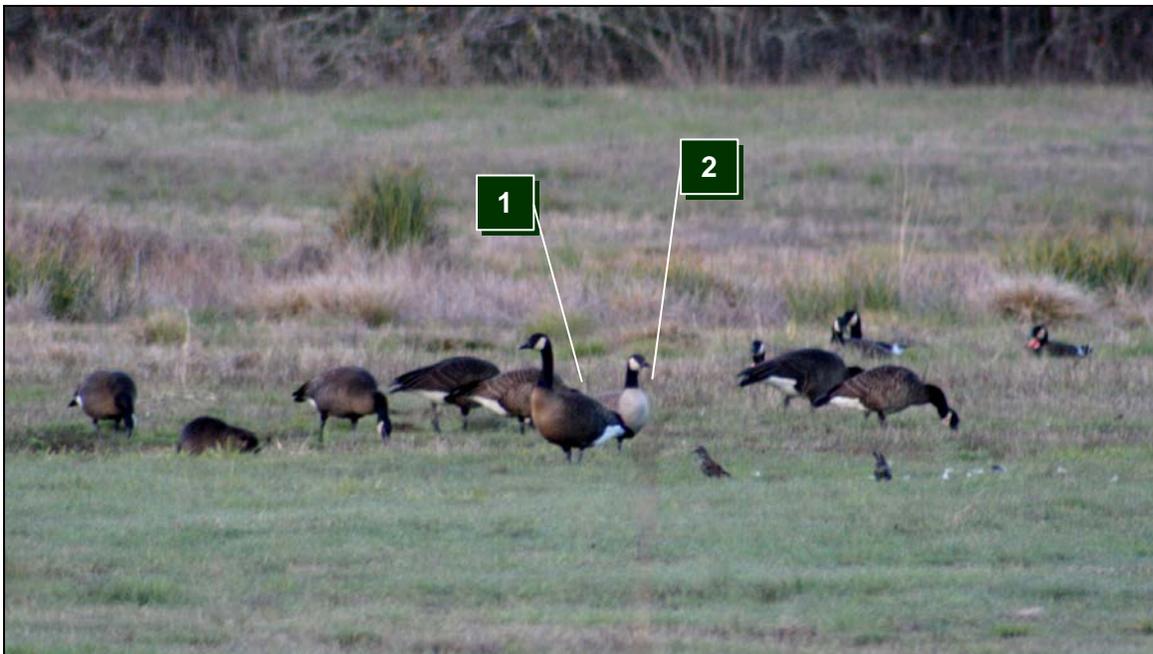


Figure 112: Dusky Canada goose (1) with Taverner's goose (2).



Figure 113: Taverner's and cackling geese with lesser Canada geese – 1) Taverner's goose; 2) cackling goose; 3) lesser Canada goose.

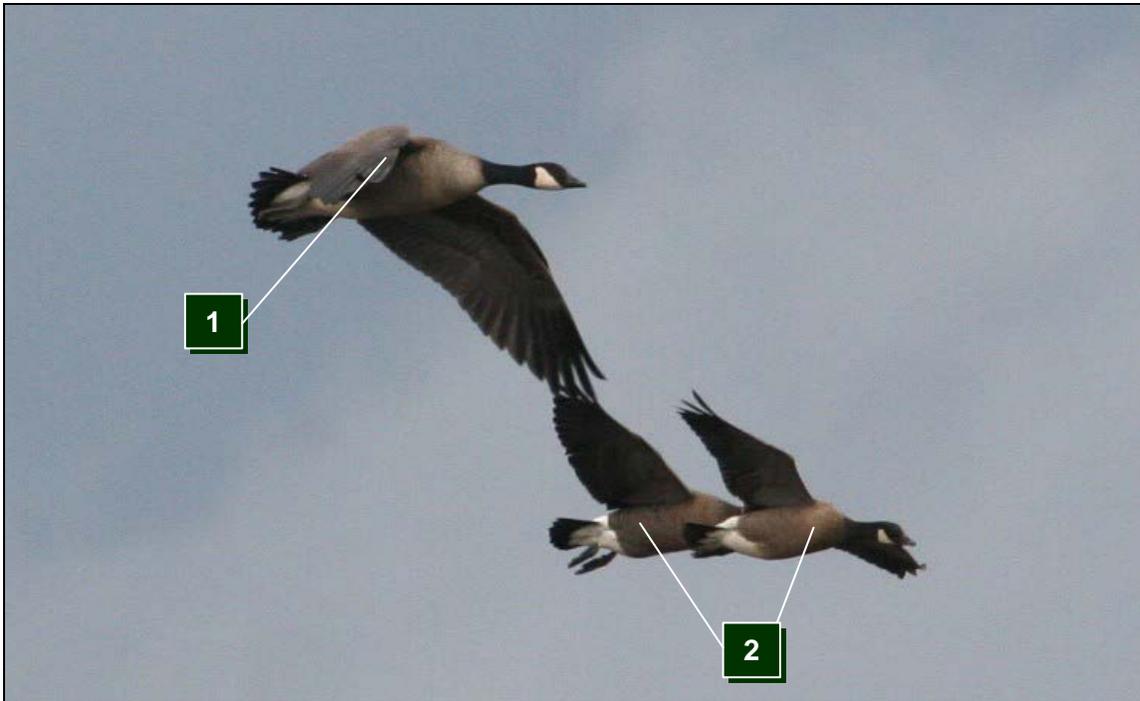


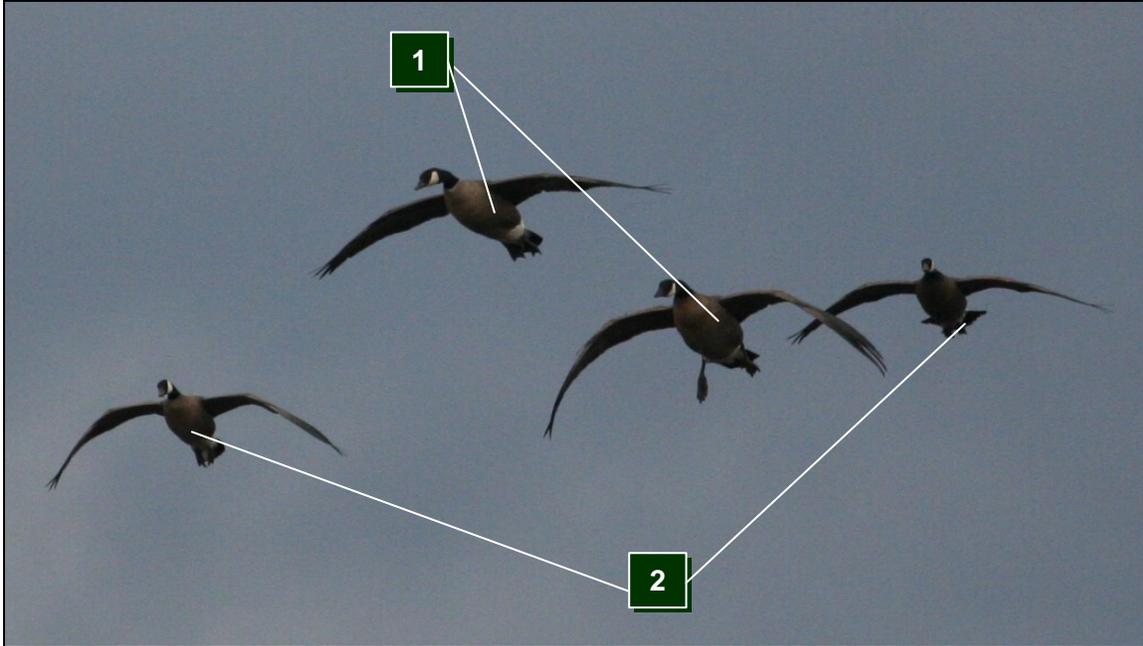
Figure 114: Taverner's goose (1) and cackling geese (2).



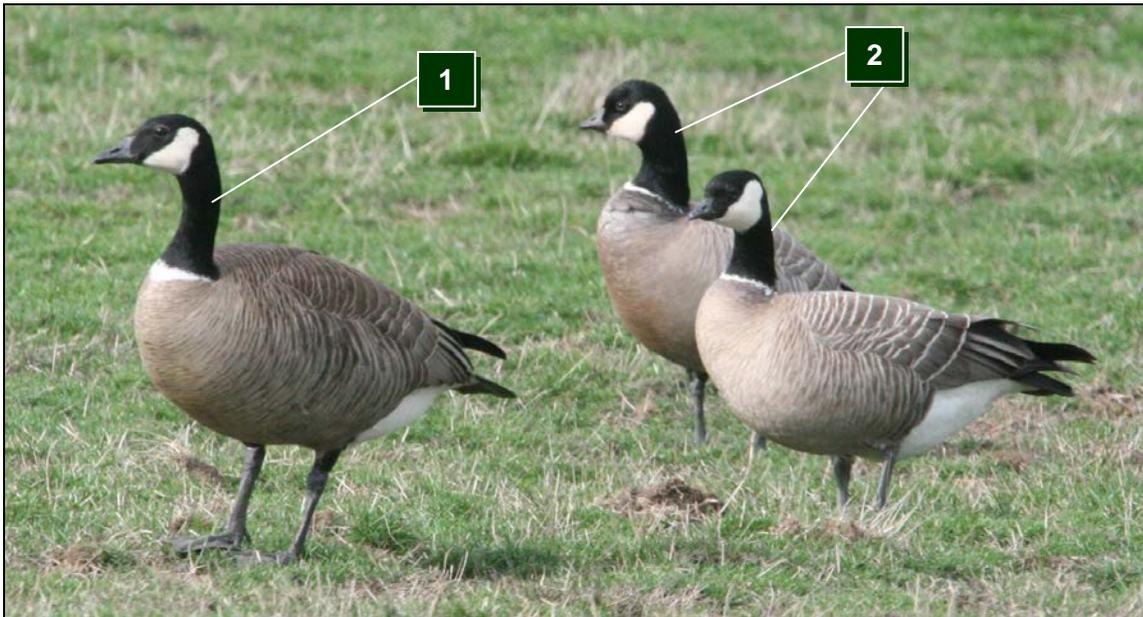
Figure 115: Taverner's goose (1) with dusky Canada geese (2).



Figure 116: Flock of dusky Canada geese interspersed with Taverner's geese (1).



*Figure 117: Taverner's geese (1) with cackling geese (2). Identification on dark days relies more on characteristics other than color, such as shape, call and behavior.*



*Figure 118: Taverner's goose (1) with cackling geese (2). Notice culmen (bill) length is longer on the Taverner's goose.*



Figure 119: Taverner's goose (in flight) with cackling geese.



Figure 120: Taverner's geese (1 & 2) with cackling geese.

## 6. NECK COLLAR PHOTOS



Figure 121: Dusky with typical red neck collars.



Figure 122: Dusky with a red neck collar.



*Figure 123: Cackler with yellow neck collar.*



*Figure 124: Cackler with neck collar (faded due to age).*



*Figure 125: Lesser with blue neck collar.*



*Figure 126: Lessers with blue neck collars.*



*Figure 127: A western with a white neck collar.*



*Figure 128: Cackling goose with faded yellow neck collar.*

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