



Pacific Flyway Council

Recommendations, Informational Notes,
and Subcommittee Reports

A Product from the Meetings of the:

Pacific Flyway Nongame Technical Committee

and the

Pacific Flyway Study Committee

September 8-10, 2025

In-person and Virtual Meeting

for the

Pacific Flyway Council

September 10, 2025

In-Person and Virtual Meeting

Summer 2025

Preface

The Migratory Bird Treaty Act implemented multiple international treaties addressing migratory bird conservation and established federal authority over migratory birds. The U.S. Fish and Wildlife Service (Service), under the authority of the Secretary of the Interior, collaborates with the Pacific Flyway Council (Council) to develop regulations for migratory birds in the United States Pacific Flyway. Two technical committees advise the Council: the Study Committee (SC) and the Nongame Technical Committee (NTC), collectively referred to as Committees. The Committees are scientific fact-finding bodies whereas the Council is an administrative and policy setting body.

The Service develops migratory game bird hunting regulations annually by establishing frameworks including outside dates, season lengths, bag limits, and hunting areas. The Council makes framework recommendations annually to the Service according to biological status, management objectives, and policy considerations. Members of the Council and the SC meet in late summer/early fall to share data, review the status of populations and actions outlined in management plans, and propose annual hunting frameworks. They meet again in late winter to develop cooperative management programs, and coordinate research and management for the protection and conservation of migratory game birds. The Council typically makes season framework recommendations to the Service in October.

The NTC also meets twice each year with the Council and SC. The NTC provides a consolidated forum for the Service and state fish and wildlife agencies to discuss, plan, and coordinate actions to address management, regulations, monitoring, and other issues related to nongame migratory birds. The NTC both responds to emerging issues originating with the Council or the Service and works proactively with conservation partners and with other states to identify and prioritize flyway-relevant issues that require attention.

Recommendations, informational notes, and subcommittee reports are prepared by the Committees and forwarded to the Council for consideration or adoption. The Council may develop or modify Committee recommendations as necessary. The Council has a policy of considering management plans for adoption only after having received the management plan for review at least 45 days in advance. The Service assumes Council's support for continuation of the previous year's frameworks if no recommendation is received.

Each recommendation and informational note identifies a contact person. The contact person drafts the recommendation or informational note (or facilitates its development) to represent the position of the Committee or the Council. The contact person is usually knowledgeable on the specific subject matter and serves as a contact for more information. If the recommendation or informational note comes from a subcommittee, that subcommittee is identified on the recommendation or note. The Chair of each subcommittee ensures the preparation of the subcommittee's report and is identified on that report.

Table of Contents

Contents

Members, Officers, and Representative Pacific Flyway Council.....	v
Pacific Flyway Study Committee.....	vi
Pacific Flyway Nongame Technical Committee.....	vi
RECOMMENDATIONS	1
Recommendation 1 — Pacific Greater White-fronted Goose Harvest Strategy Revision	2
Recommendation 2 — Rocky Mountain Population Sandhill Crane Season Framework	5
Recommendation 3 — Goose Season Framework	11
Recommendation 4 — Alaska Season Framework	13
Recommendation 5 — Subsistence Season Framework.....	16
Recommendation 6 — Duck and Merganser Season Framework	19
Recommendation 7 — Coot and Gallinule Season Framework	24
Recommendation 8 — Dove Season Framework.....	26
Recommendation 9 — Pacific Coast Band-tailed Pigeon Season Framework.....	28
Recommendation 10 — Interior Band-tailed Pigeon Season Framework.....	30
Recommendation 11 — Rail Season Framework.....	32
Recommendation 12 — Snipe Season Framework	33
Recommendation 13 — Swan Season Framework.....	34
Recommendation 14 — Special Early Canada and Cackling Goose Season Framework.....	36
Recommendation 15 — Special Falconry Season Framework.....	38
Recommendation 16 — Special Youth and Veterans-Active Military Personnel Waterfowl Hunting Days Season Framework	40
Recommendation 17— Revised population objective for Rocky Mountain Population trumpeter swans.....	42
Recommendation 18 — Harvest Management Working Group Priorities.....	47
Recommendation 19 — Study Committee Representation on the NAWMP Science Support Team and Harvest Management Working Group.....	49
Recommendation 20 — Mallard Movement Research Funding	50
Recommendation 21 — Budget Amendment for Pacific Flyway Support of the Rocky Mountain Population of Sandhill Cranes Annual Fall Recruitment Surveys	52
Recommendation 22 – Budget Recommendation for NTC Partners Meeting	53
Recommendation 23 — 2026 Budget.....	56
Recommendation 24 — Letter of Recognition for Dave Olson	59
INFORMATIONAL NOTES	61

Informational Note 1 — Allocation of Captive-reared Trumpeter Swans to Release Sites	62
Informational Note 2 — Pacific Flyway Nongame Technical Committee 2026 Work Plan	64
Informational Note 3 — NTC Priority Initiative 1: Landbird Migratory Pathways and Full Life Cycle Conservation (2021-2025).....	66
Informational Note 4 — NTC Priority Initiative 2: Shorebird and Waterbird Monitoring and Connectivity (2021-2025).....	70
Informational Note 5 — NTC Priority Initiative 3: Grassland Birds (2021-2025)	73
Informational Note 6 — NTC Priority Initiative 4: Aerial Insectivore Decline (2021-2025)....	75
Informational Note 7 — NTC Coordination with USFWS 2026 Nongame Bird Status and Conservation Report	77
SUBCOMMITTEE REPORTS	78
Taverner’s Cackling Goose and Lesser Canada Goose Subcommittee	79
Western Canada Goose Subcommittee.....	81
White Goose Subcommittee	83
Aleutian Subcommittee.....	85
Minima Cackling Goose Subcommittee	86
Dusky Canada Goose Subcommittee.....	88
White-fronted Goose Subcommittee.....	90
Pacific Brant Subcommittee	97
Emperor Goose Subcommittee.....	100
Western Tundra Swan Subcommittee.....	102
Pacific Trumpeter Swan Subcommittee.....	103
Eastern Tundra Swan Subcommittee.....	104
Rocky Mountain Population Trumpeter Swan Subcommittee	105
Western Management Unit Mourning and White-winged Dove Subcommittee.....	108
Pacific Coast Band-tailed Pigeon Subcommittee	109
Interior Band-tailed Pigeon Subcommittee.....	110
Central Valley and Pacific Coast Populations of Sandhill Crane Subcommittee.....	112
Rocky Mountain Population—Sandhill Crane Subcommittee	113
Lower Colorado River Valley Population of Sandhill Crane Subcommittee	116
Midcontinent Population of Sandhill Crane Subcommittee	117
Double-crested Cormorant Subcommittee.....	118
Full Flyway Engagement Subcommittee	121

Members, Officers, and Representative Pacific Flyway Council

Members

Mark Burch, Alaska Department of Fish and Game
James Driscoll, Arizona Game and Fish Department
Scott Gardner, California Department of Fish and Wildlife
Matthew Eckert, Colorado Parks and Wildlife
Shane Roberts, Idaho Department of Fish and Game
Ken McDonald, Montana Fish, Wildlife, and Parks
Shawn Espinosa, Nevada Department of Wildlife
Bernadette Graham-Hudson, Oregon Department of Fish and Wildlife
Blair Stringham, Utah Division of Wildlife Resources
Mick Cope, Washington Department of Fish and Wildlife
Justin Binfet, Wyoming Game and Fish Department

Officers

Chair, Blair Stringham, Utah
Vice-chair, Shawn Espinosa, Nevada
Secretary, Jason Schamber, Alaska
Treasurer, Jeff Knetter, Idaho

Consultants to U.S. Fish and Wildlife Service Migratory Bird Regulation Committee

Shawn Espinosa (Sr.), Scott Gardner, California (Jr.)

Representative on the National Flyway Council

Shawn Espinosa, Nevada

Representative on the North American Wetlands Conservation Council

Riley Peck, Utah (Pending)

Representative on the North American Waterfowl Management Plan Committee

Blair Stringham, Utah

Representative on the Sea Duck Joint Venture Management Board

Mark Burch, Alaska

Representative on the Arctic Goose Joint Venture Management Board

Shane Roberts, Idaho

Pacific Flyway Study Committee

Members

Jason Schamber, Alaska
Larisa Harding, Arizona
Melanie Weaver, California
Adam Behney, Colorado
Jeff Knetter, Idaho
Claire Gower, Montana
Russell Woolstenhulme, Nevada
Brandon Reishus, Oregon
Jason Jones, Utah
Kyle Spragens, Washington
Sean Yancey, Wyoming

Officers

Chair, Jason Jones, Utah
Vice Chair, Russell Woolstenhulme, Nevada
Treasurer, Jeff Knetter, Idaho

Subcommittees

Aleutian Cackling Goose
Banding
Cackling/Minima Cackling Goose
Dusky Canada Goose
Emperor Goose
Interior Band-tailed Pigeon
Taverner's Cackling Goose and Lesser Canada Goose
Lower Colorado River Valley Sandhill Crane
Midcontinent Sandhill Crane
Mourning and White-winged Dove
Pacific Brant
Pacific Coast and Central Valley Sandhill Cranes
Pacific Coast Band-tailed Pigeon
Pacific Trumpeter Swan
Rocky Mountain Sandhill Crane
Rocky Mountain Trumpeter Swan
Western and Eastern Tundra Swans
Western Canada Goose
White Geese
White-fronted Goose

Pacific Flyway Nongame Technical Committee

Members

Julie Hagelin, Alaska
Edwin Juarez, Arizona

Dan Applebee, California
Brett Walker, Colorado
Michelle Kemner, Idaho
Allison Begley, Montana
Jessica Brooks, Nevada
Emily VanWyk, Oregon
Russell Norvell, Utah
Jessica Stocking, Washington
Grant Frost, Wyoming

Officers

Chair, Russell Norvell, Utah
Vice chair, Jessica Brooks, Nevada
Treasurer, Jessica Stocking, Washington
Secretary, Edwin Juarez, Arizona

Subcommittees

American White Pelican
Banding
Double-crested Cormorant Pelican
Flyway Engagement
Raptors

Representatives to the Pacific Flyway Council and Technical Committees

U.S. Fish and Wildlife Service

Todd Sanders, Division of Migratory Bird Management, Grand Junction
Steve Olson, Division of Migratory Bird Management, Vancouver
Joe Sands, Columbia-Pacific Region, Portland
Michelle McDowell, Columbia-Pacific Region, Portland
Dan Collins, Lower Colorado Basin Region, Albuquerque
Corrie Borgman, Lower Colorado Basin Region, Albuquerque
David Safine, Alaska Region, Anchorage
Amy Pocewicz, Alaska Region, Anchorage
Rick Lanctot, Alaska Region, Anchorage
Thomas Leeman, California-Great Basin Region, Sacramento
Emily Shakeri-Wells, California-Great Basin Region, Sacramento

Canadian Wildlife Service

Megan Ross, British Columbia
Garnet Raven, Alberta

Alberta Environment and Sustainable Resource Development

Jason Caswell, Alberta

Alaska Migratory Bird Co-Management Council

Patty Schwalenberg, Alaska

RECOMMENDATIONS

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 1 — Pacific Greater White-fronted Goose Harvest Strategy Revision

Recommendation

The Pacific Flyway Council (Council) adopts the revised harvest strategy to inform harvest management decisions beginning in the 2026-27 hunting season.

Justification

This addendum updates the harvest strategy in the 2003 Management Plan for Pacific Greater White-fronted Geese (Plan). The Plan is currently being revised with the goal of approval off-cycle of the regularly scheduled business meetings. However, the harvest strategy was updated for use in the interim.

The revised harvest strategy maintains the current population objective, closure and reopening thresholds; however, features a more structured approach that includes specified regulation packages based on population status. The packages contain incremental daily bag limit and season length adjustments, in place of harvest rate thresholds as prescribed in the current strategy.

The 2025 addendum to the Pacific whitefront harvest strategy* is as follows and would replace the harvest strategy, found on page 30–31 of the 2003 Plan.

Adoption
Pacific Flyway Study Committee
September 10, 2025

Contact: Melanie Weaver



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

Addendum to the Pacific Flyway Council Management Plan for the Pacific Population of Greater White-fronted Geese – September 10, 2025

REVISED HARVEST STRATEGY FOR PACIFIC GREATER WHITE-FRONTED GEESE

The harvest strategy is intended to provide hunting opportunities commensurate with population status and to conserve Pacific whitefronts in perpetuity. In recognition that this population is a shared resource throughout the flyway, the following harvest guidelines apply:

1. Harvest management should maintain a minimum population of 300,000 as assessed by the 3-year average projected fall index.
2. If the 3-year average exceeds 450,000 further liberalizations should be considered.
3. To reopen after closure, the 3-year average must exceed 120,000.
4. When in Moderate and Restrictive regulation package, AZ, CO, ID, MT, NM, NV, UT and WY have the option to include white-fronted geese in an aggregate bag limit in accordance with their established regular season framework for Canada and cackling geese and brant (dark geese). Seasons must end no later than January 31 if this option is selected.
5. Implementation of this strategy will include consideration of effects on the Pacific Flyway population of Tule greater white-fronted geese.

Regulation Package	3-year average
Closed	<100,000
Restrictive	100,000-<200,000
Moderate	200,000-<300,000
Liberal	≥300,000

Regulation Package	Restrictive	Moderate	Liberal	Framework Start Date
Days and Bag	37 days 2 daily bag	79 days 4 daily bag	107 days 6 daily bag	Saturday closest to September 24 Except Alaska is September 1
Ending Date	January 31	January 31	March 10	
Segments	1	2	3	

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 2 — Rocky Mountain Population Sandhill Crane Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change in the season framework for Rocky Mountain Population (RMP) sandhill cranes, except:

- Montana will expand existing RMP sandhill crane hunt district (Zone 4 – MT HD 390) in west-central Montana beginning with the 2026–2027 hunting season. The expanded area will include a portion of Lewis and Clark County and increase the number of permitted hunters in the hunt district from 25 to 35 (2 crane tags/permit).

Allowable harvest will be determined by the formula described in the Pacific and Central Flyway Management Plan for the Rocky Mountain Population of Sandhill Cranes pending results of the 2025 fall abundance and recruitment surveys.

Justification

The Pacific and Central Flyway Management Plan for RMP sandhill cranes specifies allocation of allowable crane harvest based on fall surveys if the 3-year average of the fall population index exceeds 15,000. The most recent 3-year average (2022–2024) is 23,606 cranes. The 3-year average fall population index has never fallen below 15,000 in the history of the survey (since 1997).

Justification for modification of an existing RMP crane hunting district Montana

Currently, Montana has seven sandhill crane limited license areas, as well as an over-the-counter permit valid in the Central Flyway (outside special license areas). Five hunting districts (HD) are fully within the Pacific Flyway: HD 280 (Zone 1), HD 284 (Zone 2), HD 380 (Zone 3), HD 390 (Zone 4), HD 480 (Zone 5); HD 599 (Zone 8) is in the Central Flyway and HD 586 (Zones 6 and 7) includes counties in both flyways (Figure 1). Montana proposes to expand HD 390 using hunter harvest to proactively address crop damage concerns (reported by several local landowners in the Helena valley).

The HD amendment would add a portion of Lewis and Clark County to the existing Broadwater County Zone 4/HD 390 (Figure 1). The new HD would include Broadwater County and those portions of Lewis and Clark County east of I-15. Crane hunting would not be permitted in the South Half of Lake Helena closure area.

Three years of survey data are required under the Management Plan for RMP Sandhill Cranes

before a HD can be proposed and/or established. This requirement has been exceeded in the proposed HD, with 25+ years of survey data. Aerial surveys at fall pre-migration staging areas show strong numbers in recent years (Figure 2; Table 1). Over the last five years (2020–2024), the Helena Valley count ranged from 40–403 cranes; however, the count of 40 was a ground count, and not necessarily comparable to the other aerial counts. Fluctuations in annual counts are thought to be results of migration timing, weather, and flight conditions, more so than variability in productivity.

The proposal is to expand Zone 4 (HD 390) and to increase the number of permitted hunters from 25 to 35. Each successful applicant would receive two sandhill crane licenses. Historical and recent trend data for this survey area suggest additional take of 20 cranes would have little, if any, impact on the number of sandhill cranes that use fall pre-migration staging areas within the HD. While hunter success varies annually, the statewide average success per license is nearly 33%. Montana has been conservative in its harvest of the RMP and has typically been well below its harvest allocation (Table 2); harvest in the expanded HD is expected to be negligible, and statewide harvest is expected to remain well within the state allocation as the number of hunters issued licenses for this modified hunting district would be small.

Long-term monitoring of crane numbers at fall pre-migration staging areas will continue through the coordinated September survey. Crane hunter harvest will be monitored through annual questionnaires.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Dr. Larisa Harding



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

2026 Season

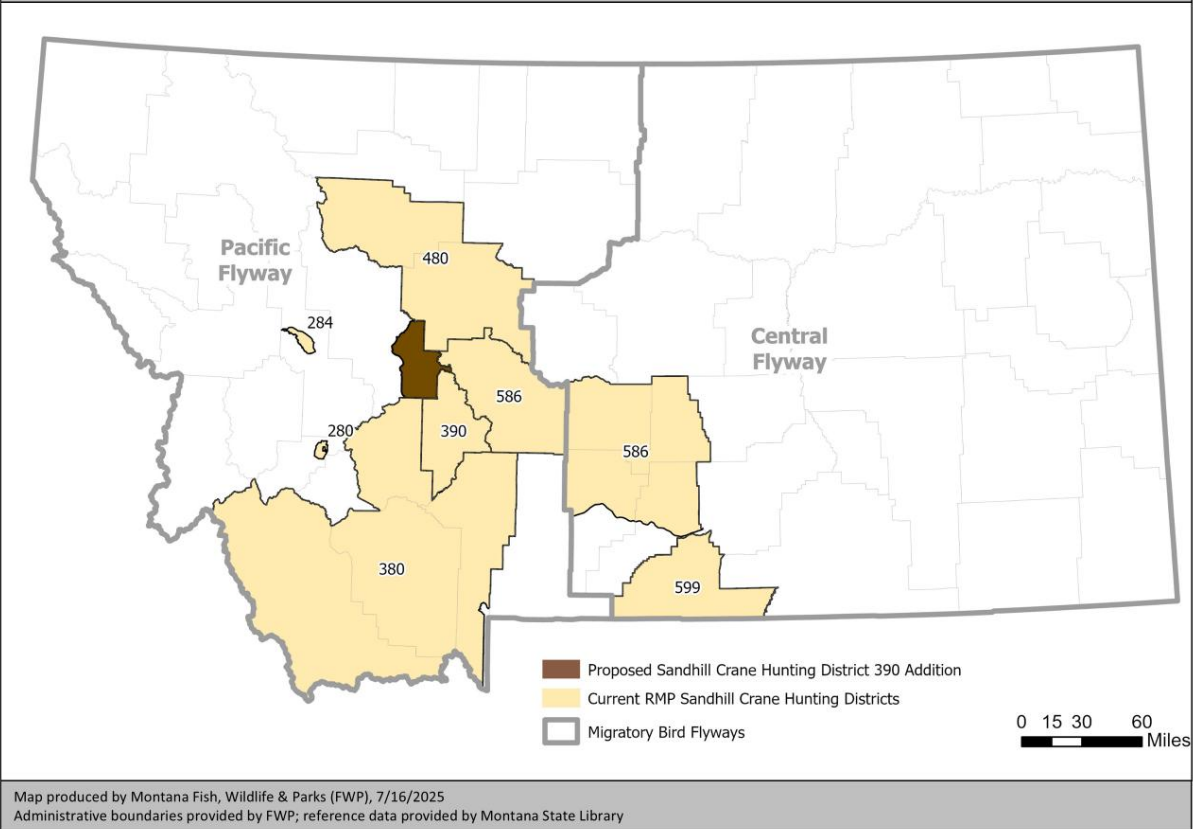


Figure 1. Proposed Rocky Mountain Population sandhill crane hunting districts in Montana’s Central and Pacific Flyways.

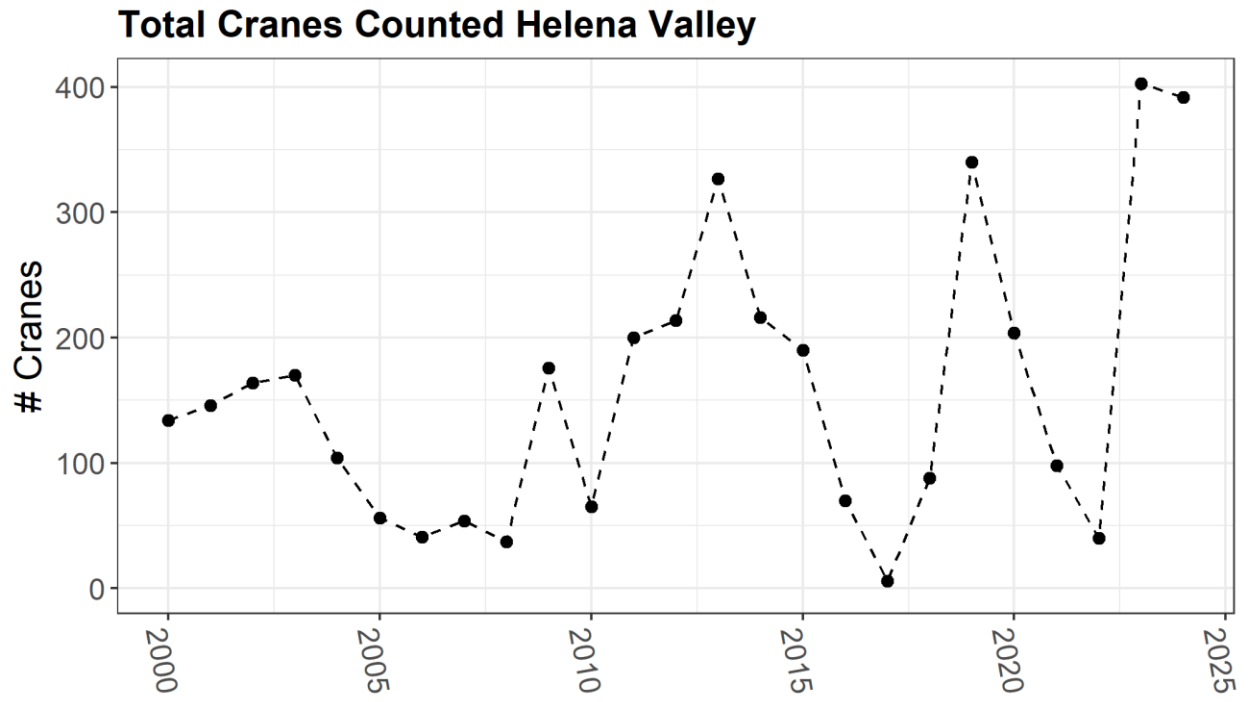


Figure 2. Annual counts of Greater Sandhill Crane within the Helena Valley Survey Area.

Table 1. Sandhill Crane Population Data: RMP Total, Montana Statewide, and Helena Valley Surveys.

Year	RMP Total Count	MT Proportion of RMP Count	Helena Valley Count
2000	19,990	3,598	134
2001	16,559	4,575	146
2002	18,803	4,843	164
2003	19,523	4,964	170
2004	18,510	4,637	104
2005	20,865	5,588	56
2006			41
2007	22,822	6,509	54
2008	21,156	6,419	37
2009	20,321	6,329	176
2010	21,064	7,335	65
2011	17,494	6,642	200
2012	15,417	6,150	214
2013	20,360	7,218	327
2014	19,663	6,555	216
2015	24,330	9,493	190
2016	22,264	7,507	70
2017	19,592	7,149	6
2018	21,801	7,553	88
2019	21,290	7,511	340
2020	25,636	9,264	204
2021	23,963	7,783	98
2022	18,632	6,844	40
2023	27,267	10,169	403
2024	24,909	7,280	392

Table 2. Montana Sandhill Crane Population, RMP License Allocation, Issuance, Harvest, and Hunter Success.

Year	Statewide RMP Staging Survey Count	Montana Allocation of RMP Cranes	Number of RMP Licenses Issued in MT ¹	Montana RMP Estimated Crane Harvest ²	% of Allocation Filled	% Success Per License
2000	3,598	110	195	86	78	44
2001	4,714	110	185	86	78	46
2002	4,864	81	147	47	58	32
2003	4,964	64	130	48	75	37
2004	4,637	63	127	49	78	39
2005	5,588	88	125	46	52	37
2006	Incomplete	129	142	51	40	36
2007	6,509	199	164	68	34	41
2008	6,419	251	228	83	33	36
2009	6,329	292	314	116	40	37
2010	7,335	298	315	98	33	31
2011	6,642	266	295	84	32	28
2012	6,150	238	355	121	51	34
2013	7,218	144	355	83	58	23
2014	6,555	127	395	121	95	31
2015	9,493	180	433	137	76	32
2016	7,507	394	461	140	36	30
2017	7,149	467	475	150	32	32
2018	7,553	425	485	154	36	32
2019	7,511	317	485	179	56	37
2020	9,264	303	555	148	49	27
2021	7,783	461	575	156	34	27
2022	6,844	535	575	174	33	30
2023	10,169	491	595	138	28	23
2024	7,280	581	595	167	29	28
2025	Not Available	611	615	Not Available	Not Available	Not Available

¹Numbers reported are the allowable number of cranes to be taken each year. Permits in hunting districts 284, 380, 390, 586, 599 allow for the take of 2 cranes. Permits in hunting districts 280 and 480 allow only 1 crane per permit.

²The totals reported do not include the Central Flyway Regular Season Open Area.

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 3 — Goose Season Framework

Recommendation

Council recommends no change in the regular season framework for geese in the Pacific Flyway, except to reduce the bag limit for white-fronted geese from 10 to 6 per day. Council also recommends the 2026–2027 brant season framework for California, Oregon and Washington be determined by the Council’s Pacific Brant Harvest Strategy, pending results of the 2025 Fall Photographic Survey at Izembek Lagoon, Alaska (FBS). If results of the 2025 FBS are not available, the most recent FBS should be used.

Justification

Monitoring activities over the last year indicated many goose populations are at or above objectives (Table 1).

Table 1. Status of Pacific Flyway Goose Populations.

	Current population indices	Current 3-year average	Population objective	Status relative to objective
Pacific Flyway western Canada geese	425,350 (2025)	377,551 (2023 – 2025)	200,000	above
Dusky Canada geese	11,797 (2025)	9,855 (2023 – 2025)	20,000	below
Lesser Canada geese	10,925 (2025)	6,204 (2022, 2024 – 2025)	None	NA
Minima cackling geese	124,369 (2025)	134,113 (2023 – 2025)	250,000	below
Aleutian cackling geese	204,576 (2025)	183,957 (2023 – 2025)	60,000	above
Taverner's cackling geese	33,616 (2025)	33,868 (2023 – 2025)	None	NA
Pacific brant	188,820 (2024)	211,823 (2022 – 2024)	322,000	below
Pacific greater white-fronted geese	468,864 (2025)	436,671 (2023 – 2025)	300,000	above
Tule white-fronted geese	6,721 (2024)	9,802 (2022 – 2024)	10,000	below
Wrangel Island snow geese/Skagit-Fraser	87,394 (2022)	93,999 (2020 – 2022)	70,000	above
Western arctic snow geese in California	1,006,561 (2024)	1,039,112 (2022 – 2024)	300,000	above
Ross's geese (continental population)	3,409,133 (2023)	2,242,631 (2021 – 2023)	150,000	above

The revised harvest strategy for Pacific white-fronted geese specifies the daily bag limit of 6 when the 3-year average projected fall index is above 300,000 (liberal package). If the current 3-year index exceeds 450,000, further liberalization can be considered (e.g., increased bag limits). The population stabilized between 600,00 and 700,000 in the early 2000s and has experienced a downward trend since 2018; from a high of 778,488 to the current 3-year index of 436,671.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Brandon Reishus



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 4 — Alaska Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no changes to the Alaska season frameworks for the 2026–2027 season, except to reduce the daily bag limits for greater white-fronted geese in Game Management Unit (Unit) 18 from 10 to 6.

Council also recommends the 2026–2027 brant season framework for Alaska be determined based on the Service’s Pacific brant harvest strategy, pending results of the 2025 Fall Brant Photographic Survey at Izembek Lagoon, Alaska (FBS). If results of the 2025 FBS are not available, the most recent FBS should be used.

Justification

Ducks – The current framework is a 107-day season and daily bag limits of 7–10 over five regulatory zones. Pacific Flyway duck regulations are based on Western Mallard Adaptive Harvest Management, which is defined by two substocks: (1) birds breeding in Alaska and the Yukon Territory, and (2) birds breeding in California, Oregon, Washington, and British Columbia. The 2025 estimated total breeding population size of western mallards was 0.89 million (SE: 0.06 million); combined totals of the Alaska-Yukon Territory (0.39 million; SE: 0.04 million) and California-Oregon-Washington-British Columbia (0.50 million; SE: 0.04 million). Based on these results, the prescribed regulatory alternative for the 2026–2027 hunting season in the Pacific Flyway is the liberal alternative. Alaska accounted for ~2.0% of the Pacific Flyway duck harvest in 2024.

Canvasbacks – The current bag/ possession limit is 2/6 canvasbacks for Alaska. The 2025 breeding population estimate was 686,805 (SE: 59,562), which supports a Liberal 2 season for the 2026–2027 hunting season under the decision support tool. Since 2015, a decision support tool has been used as an interim strategy, and incorporates available information on population size, growth rate, survival, and harvest to derive an optimal harvest policy. The season is closed when the observed population is below 460,000, a 1-bird daily bag limit when between 460,000–480,000 and a 2-bird bag limit when above 480,000. The estimated fall-winter harvest of canvasbacks in Alaska was not available in 2024.

Sea ducks – The current sea duck bag/ possession limits are 10/20, singly or in the aggregate, including no more than six each of either harlequin or long-tailed ducks. More restrictive limits are in place for nonresident hunters and all hunters in certain Game Management Units. Available information on population status and trends does not indicate adjustments to framework regulations are necessary. Sea ducks include scoters, mergansers, common and king

eiders, harlequin ducks, and long-tailed ducks. The season is closed for Steller’s and spectacled eiders.

Geese – For goose populations with management strategies, many were above their population objectives (Table 1), or had prescribed regulatory restrictions in place (e.g., a closed season for emperor geese or a reduced season length for brant) for those below objectives. Consequently, no change is recommended in the Alaska frameworks except to reduce the bag/possession limits for Pacific greater white-fronted geese from 10/30 to 6/18 in Unit 18 (see below).

Table 1. Most recent population status and management plan objectives for Pacific Flyway goose populations in Alaska.

Population	Recent Index		3-year Average Index		Mgmt Index	Objective	Obj. Status
	Estimate	Year	Estimate	Years			
Pacific white-fronted geese	468,864	2025	436,671	2023-2025	3-year avg	300,000	above
Midcontinent white-fronted geese	2,749,577	2023	2,407,537	2021-2023	3-year avg & harvest rate	1,200,000	above
Minima cackling geese	124,369	2025	134,113	2023-2025	3-year avg	250,000	below
Lesser Canada geese	10,925	2025	6,204	2022, 24, 25	No index	None	N/A
Taverner’s cackling geese	33,616	2025	33,868	2023-2025	No index	None	N/A
Aleutian cackling geese	204,576	2025	183,957	2023–2025	3- year avg	60,000	above
Dusky Canada geese	11,797	2025	9,855	2023-2025	3-year avg	20,000	below
Vancouver Canada geese	No data				No index	None	
Emperor geese	22,180	2025	20,920	2023-2025	Single year	34,000	below
Pacific brant	188,820	2024	211,823	2022-2024	3-year avg	322,000	below
Western Arctic lesser snow geese	1,006,561	2024	1,039,112	2022-24	3-year avg	300,000	above
Wrangel Island lesser snow geese	87,394	2022	93,999	2020-2022	3-year avg	70,000	above

Pacific greater white-fronted geese – Reducing the bag/possession limit for Pacific greater white-fronted geese from 10/30 to 6/18 in Unit 18 is consistent with the prescription in the Liberal package of the revised harvest strategy in the Management Plan for Pacific Greater White-fronted geese adopted by Council in September 2025. The harvest packages in the strategy are commensurate with population status. The revised strategy continues to be based on the 3-year average projected fall index derived from the indicated total birds index from aerial surveys covering the Yukon-Kuskokwim Delta and Bristol Bay breeding areas. However, the new strategy features a shift to a more structured approach that includes specified regulation packages that contain incremental daily bag limit and season length adjustments, in place of harvest rate thresholds as in the former strategy. If the 3-year average projected fall index is >300,000, then the bag limit is 6 daily with a 107-day season. Further liberalizations can be considered if the index is above 450,000.

Western tundra swans – The current framework authorizes a permit hunt in Units 17, 18, 22, and 23 with no more than three swans allowed per permit. The western tundra swan population is managed using the 3-year average of the breeding ground index, which includes the combined total bird indices from the Waterfowl Breeding Population and Habitat Survey (Strata 8, 9 [inland portion], 10, and 11) and the Yukon Kuskokwim Delta Coastal Zone Survey. In 2025, the breeding ground index was 72,917 (95% CI: 45,821–100,013) and the most recent three-year (2023–2025) average was 73,015 (95% CI: 52,563–93,466) swans; 22% above the management plan objective of 60,000 tundra swans.

Midcontinent lesser sandhill cranes – The current framework is a daily bag limit of three cranes in Units 11–13 and 18–26. The spring 2025 photo-corrected estimate of abundance for sandhill cranes in the Central Platte River Valley was 1,406,071. The most recent 3-year average from 2023–2025 was 1,028,703, which exceeds the established population objective range of 350,000–475,000 cranes. The 2024 estimated fall-winter harvest in Alaska was 1,232 cranes, accounting for <2% of the harvest in the United States.

Pacific population lesser sandhill cranes – The current framework is a daily bag of two cranes in Units 1–10 and 14–17. Alaska is the only state that harvests this population. Currently, there is not a population specific survey that estimates abundance and trends. The 2024 fall-winter harvest estimate of cranes in Units 1–10 and 14–17 was 72 cranes.

Snipe – The current framework is a daily bag limit of 8 birds in all Units. The reported harvest of snipe during the 2024 season in Alaska was 229: approximately 6% of total snipe harvest in the Pacific Flyway.

Falconry – The current framework is a daily bag limit of three birds. There are currently 53 registered falconers in Alaska that have a total of ~32 falconry birds in possession. Migratory game bird harvest by falconry in Alaska is negligible.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Jason Schamber



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 5 — Subsistence Season Framework

Recommendation

The Pacific Flyway Council (Council) endorses the Alaska Migratory Bird Co-Management Council's (AMBCC) recommended changes to the regulations for spring-summer subsistence harvest in Alaska (50 CFR § 92). *These regulatory changes include:*

- Change the name of the 'Upper Copper River Region' to the 'Ahtna Territory'
- Modify season dates for hunting and egg gathering within the Upper Copper River Region in Game Management Units 11 and 13 as follows:

April 2 – June 14 and July 16 – August 31 (hunting)

May 1 – June 14 (egg gathering)

Closure: June 15 – July 15

Justification

The AMBCC is comprised of representatives from the U.S. Fish and Wildlife Service (Service), the Alaska Department of Fish and Game, and 10 Alaska Native Regional Management Bodies. Rationale for the proposed regulation changes by the AMBCC are below.

Upper Copper River Region name change:

The Upper Copper River Region is one of 12 subsistence regions in Alaska that includes eight eligible communities, and shares boundaries with Alaska State Game Management Units 11, 12, and 13. The Copper River Migratory Bird Co-Management Council submitted a proposal to the AMBCC requesting the region be renamed the "Ahtna Territory" to reflect the desires of member communities to self-identify with an appropriate regional name. The current name inaccurately reflects the region's community membership and eligible hunting areas: the town of Cantwell is not located in the Copper River drainage and traditional hunting areas contain the watersheds of other major rivers (e.g., the Yukon, Tanana, and Nenana). Renaming this region will help clarify Ahtna tribal communities included in the region and better identify those eligible to participate in spring-summer subsistence hunting.

Below are suggested amendments to 50 CFR § 92, if the proposed regulation change is accepted:

50 CFR § 92.5 Who is eligible to participate?

- (a) **Included areas.**
 - (2) Based on petitions for...
 - (i) ~~Upper Copper River~~ **Ahtna Territory** Region–
- (d) **Participation by permanent residents of excluded area.**

(2) For the ~~Upper Copper River~~ Ahtna Territory Region, a permit...

50 CFR § 92.11 Regional management areas.

(a) **Regions identified.**

(11) ~~Upper Copper River~~ Ahtna Territory; and

50 CFR § 92.31 Region-specific regulations.

(i) ~~Upper Copper River~~ Ahtna Territory region

Modify season dates within the Upper Copper River Region:

The Upper Copper River Region traditional hunt areas are defined by state Game Management Units (GMUs) 11, 12, and 13. In current regulations, the hunting and egg gathering season dates are the same in GMUs 11 and 13, but different in GMU 12 (which uses Interior Region dates). The Copper River Migratory Bird Co-Management Council proposed changing the season dates for GMUs 11 and 13 (Season: April 15 – May 26 and June 27 – August 31; Closure: May 27 – June 26) to match those listed for GMU 12 in the Interior Region (listed above under Recommendation). The proposed change will better align season dates with the availability of birds in the region given shifts and variability in timing of spring breakup; and more suitably align timing of the 30-day closure with the principal nesting period. The proposed change also would simplify regulations by establishing identical season dates among all three GMUs. The AMBCC lacked biological data to support adoption of the proposed change; rather, relied on Indigenous Knowledge to substantiate the necessity of adjusting season dates. The AMBCC does not anticipate negative impacts to migratory birds resulting from these proposed changes.

Below are suggested amendments to 50 CFR § 92 if the proposed regulation change is accepted.

50 CFR § 92.31 *Region-specific regulations.*

(i) **Upper Copper River region** (Harvest Area: Game Management Units 11, 12, and 13) (Eligible communities: Gulkana, Tazlina, Copper Center, Gakona, Mentasta Lake, Chistochina, and Cantwell).

(1) Season: ~~April 15 – May 26 and June 27 – August 31~~ **April 2 – June 14 and July 16 – August 31; egg gathering May 1 – June 14 only.**

(2) Closure: ~~May 27 – June 26~~ **June 15 – July 15.**

(3) ~~The Copper River Basin communities listed above also documented traditional use harvesting birds in Game Management Unit 12, making them eligible to hunt in this unit using the seasons specified in paragraph (h) of this section.~~

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Jason Schamber



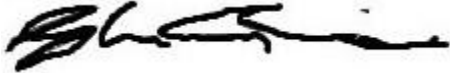
Jason Jones, Chair

Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Julie Hagelin



Russell Norvell, Chair
Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 6 — Duck and Merganser Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the duck season framework. Council recommends a 107-day season with a daily bag limit of 7 ducks and mergansers, including no more than 2 female mallards, 3 pintail, 2 canvasbacks, 2 scaup, and 2 redheads. For scaup, the season length is 86 days, which may be split according to applicable zones and split duck hunting configurations approved for each state.

Justification

In 2008, Council and the U.S. Fish and Wildlife Service (Service) adopted the Western Mallard Adaptive Harvest Management (AHM) Protocol to inform duck harvest management decisions in the Pacific Flyway and is currently defined by two substocks: 1) those mallards breeding in Alaska and 2) those mallards breeding in British Columbia, California, Oregon, and Washington.

The Service and their partners conducted the Waterfowl Breeding Population and Habitat Survey (WBPHS) and estimated waterfowl breeding populations and evaluated breeding habitat conditions in 2025. The Service continues to use current system models to estimate 2020–2021 population sizes which were not observed due to the COVID-19 pandemic. These estimates are based on the most recent information from monitoring programs, including harvest and harvest rate estimates observed during the 2020–2021 hunting seasons. Typical AHM protocols resumed with observations of key state variables and annual updates from monitoring programs; AHM decision frameworks were developed to inform duck hunting regulations based on the observed 2025 breeding population size and the regulatory alternatives selected for the 2025 hunting season.

After several years of extensive collaboration with the Pintail Working Group (PWG), the interim AHM strategy is being implemented to inform northern pintail harvest regulations beginning with the 2025 hunting season. This updated strategy is based on an Integrated Population Model (IPM) that was developed by the PWG to better represent pintail population and harvest dynamics.

Duck and Merganser

The optimal regulatory alternative for the 2026 duck and merganser hunting season was calculated using: (1) the management objective to maximize long-term cumulative harvest of western mallards; (2) current regulatory alternatives; and (3) current population models and parameter estimates. Assuming harvest management adhered to this strategy (and that current model parameters accurately reflect population dynamics), breeding-population size would be

expected to average 0.56 million (SD = 0.06 million) in Alaska and 0.54 million (SD = 0.05 million) in the southern Pacific Flyway. Based on the liberal regulatory alternative selected for the 2025 hunting season, an observed 2025 breeding population size of 0.89 million mallards - 0.39 million in Alaska and 0.50 million in the southern Pacific Flyway - the optimal choice for the 2026 hunting season is the liberal regulatory alternative.

More restrictive regulations for duck species of concern (i.e., pintail, scaup, canvasback, and redhead) are established within the context of the general duck season, and each is based on a separate harvest strategy protocol after the general duck season length is determined.

Northern Pintail

In 2010, the Service and Flyway councils adopted an adaptive management framework to inform harvest management decisions for northern pintails. After several years of experience, the Flyway councils expressed an interest in revisiting several key policy and technical issues associated with pintail AHM, including updating pintail data sources and the pintail population models, while also reconsidering the inclusion of a 3-bird daily bag limit. A Pintail Working Group (PWG) was established to oversee this effort and evaluate a number of alternative harvest strategies. As a result, all pintail monitoring datasets have been updated and analyzed with a newly developed Integrated Population Model (IPM) within a Bayesian estimation framework. After extensive consultation with each Flyway, the PWG recommended adoption of an interim adaptive harvest management strategy to inform pintail harvest regulations starting with the 2025–2026 hunting season. The new pintail harvest strategy would be implemented on an experimental basis until three seasons of a 3-bird bag limit have been realized while allowing for two years to analyze data and conduct a full evaluation of the interim strategy. Based on the results of a formal review of this evaluation, the adoption of an operational Northern Pintail Harvest Strategy will be considered and negotiated by the Flyways and the USFWS.

For pintail, the optimal regulatory alternative for the 2026 hunting season was calculated using: (1) an objective to maximize long-term cumulative harvest; (2) current regulatory alternatives and the closed-season constraint; and (3) the integrated population model for northern pintails. Assuming harvest management adhered to this strategy (and that current models accurately reflect population dynamics), pintail breeding-population size would be expected to average 2.01 million with a mean observed harvest of 467,000 birds. Based on an observed 2025 breeding population size of 2.24 million pintails observed at a mean latitude of 58.87 degrees, the optimal regulatory choice for the 2026 hunting season for all four Flyways is the liberal regulatory alternative with a 3-bird daily bag limit.

Scaup

In 2008, the Service and Flyway councils adopted the adaptive harvest management protocol to inform harvest management decisions for scaup in all four flyways. For scaup, optimal regulatory alternatives for the 2025 hunting season were calculated using (1) an objective to achieve 95% of long-term cumulative harvest; (2) current scaup regulatory alternatives; and (3) the current population model and updated parameter estimates. The resulting regulatory strategy includes options conditional on the regulatory alternative selected the previous hunting season. Assuming harvest management adhered to this strategy (and current model parameters accurately reflect population dynamics), breeding-population size would be expected to average 5.18

million (SD = 0.94 million). Based on a restrictive regulatory alternative selected in 2025, an observed 2025 breeding population size of 3.68 million scaup, the optimal regulatory choice for the 2026 hunting season for all four flyways is the restrictive regulatory alternative, with a 2-bird daily bag limit.

Canvasback

At the October 2015 Service Regulatory Committee (SRC) meeting, the SRC requested a group be convened to develop a decision support tool (DST) to deliver canvasback framework recommendations for the 2017–18 hunting seasons. A group of US Fish and Wildlife Service and state biologists was formed to develop the DST. At the November 2015 Harvest Management Working Group meeting, this group established criteria for developing the DST, which consisted of the following: (1) it needed to be biologically-based, (2) must use data that are currently available, (3) must be simple (i.e., could not require lengthy, intensive analyses), and (4) would be used as a short-term approach for developing harvest recommendations, preferably only for the next 1–2 hunting seasons. The group agreed that an “assessment of harvest potential” analysis using fixed values for demographic variables would likely be sufficient to use as the framework for the DST. Results from the harvest potential analysis recommend canvasback seasons open, with a 1-bird daily bag, provided the most recent breeding population estimate is above 460,000. Moreover, the daily bag limit can increase to 2 birds per day when the most recent population estimate is above 480,000. The committee recognizes this analysis used maximum sustained yield as a harvest objective and thus may not be fully reflective of the long-term canvasback population and harvest objectives of the flyways. Given the short-term use of the tool and that the flyways will be addressing long-term canvasback objectives as part of the process of revisiting overall duck harvest objectives, the committee was comfortable using the results of the DST to develop canvasback season recommendations.

Based on the 2025 survey results of 686,805 canvasbacks, the regulatory choice defined by the DST for the 2026 hunting season for all four flyways is the liberal regulatory alternative with a 2-bird daily bag limit. It is important to emphasize the DST is intended to be used in the short-term while the Service and the flyways continue to address long-term canvasback objectives.

Redhead

The 2-bird daily bag limit on redheads has primarily been based on concern for canvasbacks. Because redheads look similar to canvasbacks, managers generally agree that any increase in the redhead bag limit likely translates into increased canvasback harvest. Redhead regulations have been tied to canvasback regulations as far back as 1972. A 2-bird daily bag limit for redheads has been in place since at least 1973 in the Pacific Flyway.

Notification of changes to duck zones in the Pacific Flyway for the 2026–2030 seasons
In Idaho (Figure 1): move most of Bingham County, Bannock County, and portions of Bear Lake and Caribou counties from Zone 1 to Zone 3.

Zone 1 would include the following counties: Bear Lake County east of Highway 30 to Montpelier, south of Highway 89 to Ovid, and east of Highway 89 to the state line, Bingham County within the Blackfoot Reservoir drainage, Caribou County north of Highway 30; Bonneville, Butte, Clark, Fremont, Jefferson, Madison, and Teton counties.

Zone 2 would include Benewah, Bonner, Boundary, Kootenai, and Shoshone counties.

Zone 3 would include Bear Lake County west of Highway 30 to Montpelier, north of Highway 89 to Ovid, and west of Highway 89 to the state line, Bingham County except that portion within the Blackfoot Reservoir drainage, Caribou County south of Highway 30; Ada, Adams, Bannock, Blaine, Boise, Camas, Canyon, Cassia, Clearwater, Custer, Elmore, Franklin, Gem, Gooding, Idaho, Jerome, Latah, Lemhi, Lewis, Lincoln, Minidoka, Nez Perce, Oneida, Owyhee, Payette, Power, Twin Falls, and Washington counties.

Zone 4 would include Valley County.

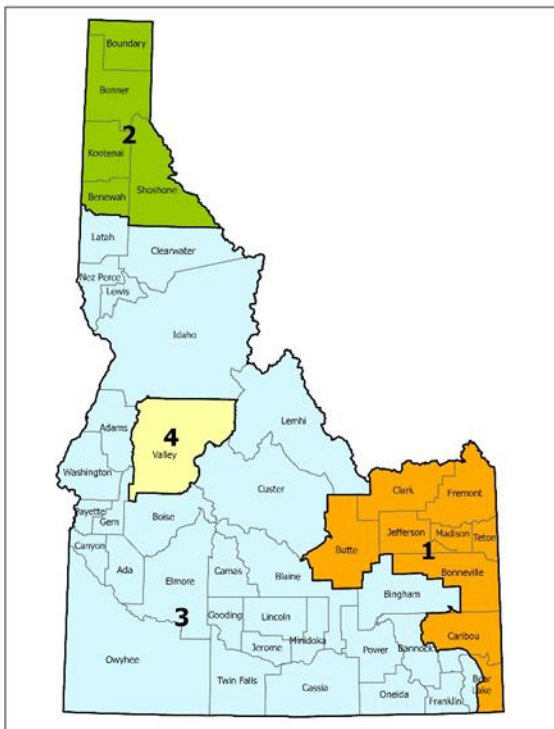


Figure 1. Proposed 2026–2030 Idaho duck zones.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Jeff Knetter



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 7 — Coot and Gallinule Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the season framework for coot and gallinule. The daily bag limit is 25, singularly or in the aggregate, with a possession limit of 3 times the daily bag limit. Outside dates and season length are the same as the duck season framework.

Justification

The coot and gallinule season framework includes 3 gallinule species; however, only the common gallinule is likely to be encountered by hunters in the Pacific Flyway, and then only in southwestern states.

The most current data from the North American Breeding Bird Survey (BBS) for American coots indicate a negative trend in abundance during the long-term (1966–2024) and no trend for the most recent ten years (2015–2024). The estimated annual percent change during the long term was -1.56% (95% CI = -3.76 – -0.13, routes = 805) and -2.37% (95% CI = -6.56 – 2.24, routes = 805) over the short term.

The most current BBS data available for common gallinule indicate a stable trend in abundance during the long term (1966–2024) and the most recent 10 years (2015–2024). The annual percent change during the long term was 0.31% (95% CI = -1.08 – 1.85, routes = 231) and 3.54% 2020–2024 (95% CI = -2.24 – 11.40, routes = 231) over the short term.

Adoption
Pacific Flyway Study Committee
September 10, 2025

Contact: Sean Yancey



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 8 — Dove Season Framework

The Pacific Flyway Council (Council) recommends no change to the season framework for doves in the Western Management Unit (WMU).

Council recommends a framework with outside dates between September 1 and January 15 with state-specific season lengths and bag limits as follows:

In Idaho, Nevada, Oregon, Utah, and Washington, the season length shall be not more than 60 days, which may be split between two periods. The daily bag limit is 15 mourning and white-winged doves in the aggregate. Oregon may select seasons in each of two zones.

In Arizona and California, the season length shall be not more than 60 days, which may be split between two periods, September 1–15 and November 1–January 15. The daily bag limit is 15 mourning and white-winged doves in the aggregate.

Justification

A mourning dove harvest strategy was endorsed by the Flyway councils and the Service Regulations Committee in 2013 for the Eastern, Central and Western Management Units with implementation beginning in 2014. The harvest strategy was revised in 2017 and updated in 2024 to replace the discrete logistic model with an Integrated Population Model (IPM). The predicted abundance of mourning doves and respective credible intervals for 2024 in the WMU is 50.70 million (70% CI: 42.39-58.94 million). The predicted abundance is consistent with the “Standard” regulatory as prescribed by the harvest strategy.

The estimated abundance (index, birds per route) of Western Management Unit white-winged doves during spring 2024 was 75.12 (95% CI: 50.38-117.92). The harvest strategy is based on the lower 70% credible interval of the most recent moving 3-year average abundance, which for 2022-2024 was 74.05, above the management threshold of 34.0 for the “Standard” alternative prescribed by the harvest strategy.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Kyle Spragens



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 9 — Pacific Coast Band-tailed Pigeon Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the season framework for Pacific Coast band-tailed pigeons.

Council recommends a framework in California, Nevada, Oregon, and Washington with outside dates between September 15 and January 1, a season length of nine consecutive days, a daily bag limit of 2 birds, and a possession limit of 6 birds. California may select seasons in two zones: North Zone and South Zone. The North Zone includes Alpine, Butte, Del Norte, Glenn, Humboldt, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity counties. The South Zone includes the remainder of the state. The season in the North Zone must close by October 3.

Justification

Based on the harvest strategy in Council's management plan for Pacific Coast band-tailed pigeons and the results of the 2025 Mineral Site Survey (MSS), the prescribed regulatory alternative for California, Nevada, Oregon, and Washington is the restrictive regulatory alternative. Assessment of the MSS indicated an increase in abundance for the Pacific Coast population during the period of survey (2004–2025: 1.3% per year, 95% credible interval = 0.1 to 2.5). There was some evidence for an increase in abundance over the most recent 10-year period based on the MSS, but no trend was evident during the recent 5-year period.

Adoption
Pacific Flyway Study Committee

Contact: Melanie Weaver

September 10, 2025



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 10 — Interior Band-tailed Pigeon Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the season framework for Interior band-tailed pigeons.

Council recommends a framework in the Pacific Flyway portion of Arizona, Colorado, New Mexico, and Utah with outside dates between September 1 and November 30, season length of 14 days, and daily bag limit of 2. New Mexico may select hunting seasons in two zones: North and South Zones. The North Zone consists of the area north of a line following U.S. Highway 60 from the Arizona State line east to Interstate 25 at Socorro and south along Interstate 25 from Socorro to the Texas state line. The South Zone includes the remainder of the State. The South Zone season may not open until October 1.

Justification

Total harvest estimates, obtained from the Harvest Information Program (HIP), for Interior band-tailed pigeons was 1,100 birds in 2024, down from 1,366 birds in 2023. The Breeding Bird Survey estimates that interior band-tailed pigeon numbers have been declining approximately 2.14% (95% credible interval = -4.64--0.46) per year over 1968–2024, but stable with no trend over the last 10 years (-0.01%, 95% credible interval = -4.64–5.65). There is considerable uncertainty in harvest estimates from the federal harvest survey. All states are working to refine harvest surveys to improve harvest estimates, and each state (except Arizona) has a permit system required for anyone hunting band-tailed pigeons. This should provide a better sampling frame to increase the accuracy of harvest estimates.

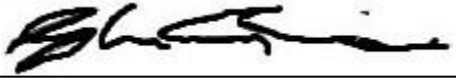
Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Adam Behney

Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 11 — Rail Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the season framework for sora and Virginia rails.

Council recommends a framework including sora and Virginia rails in the Pacific Flyway portions of Colorado, Montana, New Mexico, and Wyoming with a season length of 70 days and daily bag and possession limits of 25 sora and Virginia rails in the aggregate. Season length may be split into two segments. The season shall be closed in the remainder of the Pacific Flyway.

Justification

The most current data available from the North American Breeding Bird Survey indicate Virginia rail and sora abundances were stable during the long (1966–2024) and short (2015–2024) terms. For Virginia rail, estimated annual percent change during the long term was 0.18% (95% credible interval = -0.90–1.09, routes = 315) and -3.33% (95% credible interval = -7.76–0.96, routes = 315) during the short term. Credible intervals overlapped zero for both time periods, indicating no trend. For sora, the estimated long-term annual percent change was 1.01% (95% credible interval = -1.11–2.15, routes = 632) and -0.46% (95% credible interval = -4.21–3.73, routes = 632) during the short term, indicating stable abundance over both time periods.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Adam Behney

Jason Jones, Chair

Pacific Flyway Council
September 12, 2025

Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 12 — Snipe Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the season framework for snipe.

Council recommends a framework with outside dates between September 1 and February 28, season length of 107 days, daily bag limit of 8, and possession limit of 24. Season length may be split into two segments. Seasons may be selected by zones established for duck hunting.

Justification

The most current data available from the North American Breeding Bird Survey indicated Wilson’s snipe abundance was stable during the long term (1966–2024) and most recent 10 years (2015–2024). Estimated annual percent change during the long term was 0.26% (95% credible interval = -0.17–0.70, routes = 1,076) and -1.22% (95% credible interval = -2.65–0.16, routes = 1,076) during the short term, indicating stable abundance during both time periods.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Adam Behney

Jason Jones, Chair

Pacific Flyway Council
September 12, 2025

Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 13 — Swan Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the season framework for swans in the Pacific Flyway:

In portions of the Pacific Flyway (i.e., Idaho, Montana, Nevada, and Utah), an open season for taking a limited number of swans may be selected. These seasons are also subject to the following conditions:

Outside Dates: Between the Saturday nearest September 24 and January 31.

Hunting Seasons: Seasons may not exceed 107 days and may include two segments.

Permits: Swan hunting is by permit only. Permits will be issued by individual states and authorize each permittee to take no more than one swan per season with each permit. Only one permit may be issued per hunter in Idaho, Montana, and Utah. Two permits may be issued per hunter in Nevada. The total number of permits issued may not exceed 50 in Idaho, 500 in Montana, 750 in Nevada, and 2,750 in Utah.

Quotas: Swan seasons in Nevada and Utah must end upon attainment of the following reported harvest of trumpeter swans: 10 in Nevada and 20 in Utah. There is no trumpeter swan harvest quota in Idaho or Montana.

Monitoring: Each state must evaluate hunter participation, species-specific swan harvest, and hunter compliance by providing either species-determinant parts (at least the intact head) or bill measurements (bill length from tip to posterior edge of the nares opening, and presence or absence of yellow lore spots on the bill in front of the eyes) of harvested swans for species identification. Each state should use appropriate measures to maximize hunter compliance for swan harvest reporting. Each state must achieve a hunter compliance of at least 80 percent in providing species-determinant parts or bill measurements of harvested swans for species identification, or subsequent permits will be reduced by 10% in the respective state. Each state must provide to the U.S. Fish and Wildlife Service (Service), by June 30 following the swan season, a report detailing hunter participation, species specific swan harvest, and hunter compliance in reporting harvest. In Montana, all hunters that harvest a swan must complete and submit a harvest report with bill measurement and color information from the harvested swan within 72 hours of harvest for species determination. In Idaho, Nevada, and Utah, all hunters that harvest a swan must have the swan or species-determinant parts examined by a state or federal biologist within 72 hours of harvest for species determination.

Other Provisions: In Utah, the season is subject to the terms of the Memorandum of Agreement entered into with the Service in July 2019, regarding harvest monitoring, season closure

procedures, and education requirements to minimize take of trumpeter swans during the swan season.

Justification

The status of Western Population (WP) tundra swans is measured using a 3-year average of the breeding ground index, which includes the combined total bird indices from the Waterfowl Breeding Population and Habitat Survey (Strata 8-11) and the Yukon Kuskokwim Delta Coastal Zone Survey (Pacific Flyway Council 2017). The 2025 breeding ground index was 72,917 (95% CI: 45,821–100,013) and the most recent 3-year (2023–2025) average was 73,015 (95% CI: 52,563–93,466) swans, 22% above the management plan objective of 60,000 tundra swans.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Russell Woolstenhulme



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 14 — Special Early Canada and Cackling Goose Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the framework for special early Canada and cackling goose seasons.

A Canada and cackling goose season of up to 15 days may be selected during September 1–20. The daily bag limit may not exceed 5 Canada and cackling geese, except in Pacific County, Washington, where the daily bag limit may not exceed 15 Canada and cackling geese. Areas open to hunting of Canada and cackling geese in each state must be described, delineated, and designated as such in each state’s hunting regulations.

Justification

The objective of the special early Canada and cackling goose season is to control or decrease abundance of resident Canada geese to provide hunting opportunity. Resident Canada geese in the Pacific Flyway are generally part of the Pacific Flyway Population of western Canada geese (PFP).

The population index for the PFP is based on results of the Waterfowl Breeding Population and Habitat Survey (i.e., strata 76, and portions of strata 26–29 and 41–42) plus portions of state/provincial breeding waterfowl surveys in British Columbia, Washington, Oregon, and California. The most recent (2025) breeding population estimate for the PFP is 425,350 (SE = 70,041), a 14% increase from the long-term average (374,654). The 3-year average (management index is 377,551 (SE = 62,385), 89% above objective 200,000.

Adoption
Pacific Flyway Study Committee
September 10, 2025

Contact: Russell Woolstenhulme



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 15 — Special Falconry Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change to the special season framework for extended falconry seasons. In accordance with 50 CFR 21.82, falconry is a permitted means to take migratory game birds in any State except for Hawaii. States may select an extended season for taking migratory game birds in accordance with the following:

Outside dates are September 1–March 10. For all hunting methods combined, the combined length of the extended season, regular season, and any special or experimental seasons must not exceed 107 days for any species or group of species in a geographical area. Each extended season may be split into three segments. Falconry daily bag limits for all permitted migratory game birds must not exceed three birds in the aggregate, during extended falconry seasons, any special or experimental seasons, and regular hunting seasons in each State, including those that do not select an extended falconry season. The possession limit is three times the daily bag limit. General hunting regulations, including seasons and hunting hours, apply to falconry. Regular season bag limits do not apply to falconry. The falconry bag limit is not in addition to shooting limits.

Justification

Impacts of falconry harvest on migratory bird populations are negligible. Most Pacific Flyway states select a 107-day season when available, so in many cases, no additional days remain for an extended falconry season. When waterfowl season frameworks are less than 107 days, additional days would be available for extended falconry seasons, and states may wish to consider extended falconry seasons at that time.

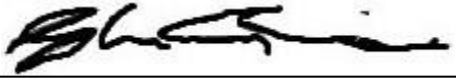
Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Russell Woolstenhulme

Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 16 — Special Youth and Veterans-Active Military Personnel Waterfowl Hunting Days Season Framework

Recommendation

The Pacific Flyway Council (Council) recommends no change in the special youth and veterans-active military personnel waterfowl hunting days season framework.

Council recommends states may select two days per duck-hunting zone designated as “Youth Waterfowl Hunting Days,” and two days per duck-hunting zone designated as “Veterans-Active Military Personnel Waterfowl Hunting Days,” in addition to their regular duck seasons. These days may be held concurrently. Youth Waterfowl Hunting Days must be held outside any regular duck season on weekends, holidays, or other non-school days when youth hunters would have the maximum opportunity to participate. Both sets of days may be held up to 14 days before or after any regular duck season frameworks or within any split of a regular duck season, or within any other open season on migratory birds.

Daily bag limits may include ducks, geese, swans, mergansers, coots and gallinules and would be the same as those allowed in the regular season. Flyway species and area restrictions would remain in effect. Swans may only be taken by participants possessing applicable swan permits. Shooting hours are one-half hour before sunrise to sunset.

States may use their established definition of age for youth hunters. However, youth hunters must be under 18 years of age. In addition, an adult at least 18 years of age must accompany the youth hunter into the field. This adult may not hunt but may participate in other seasons that are open on the special youth day. Veterans (as defined in section 101 of Title 38, United States Code) and members of the Armed Forces on active duty, including members of the National Guard and Reserves on active duty (other than for training), may participate. All hunters 16 years of age or older must possess a Federal Migratory Bird Hunting and Conservation Stamp (also known as Federal Duck Stamp) or Federal Electronic Duck Stamp (E-Stamp).

Justification

Council supports special opportunities for youth, veterans, and active military personnel to learn about waterfowl, wetland conservation, and waterfowl hunting. The intent of this special season is to (1) introduce hunters to the concepts of ethical utilization and stewardship of waterfowl and other natural resources, (2) encourage youngsters and adults to experience the outdoors together and contribute toward the long-term conservation of the migratory bird resource, (3) to provide the best and safest learning environment for those who are interested in

hunting, and (4) provide a high-quality hunting experience for youth, veterans, and active military personnel.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Kyle Spragens



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 17— Revised population objective for Rocky Mountain Population trumpeter swans

Recommendation

The Pacific Flyway Council (Council) adopts the revised population objective for Rocky Mountain Population (RMP) trumpeter swans to inform population status given discontinuation of the North American Trumpeter Swan Survey (NATSS).

Justification

This revision provides an updated population objective for RMP trumpeter swans. An updated objective was necessary because the existing population objective in the Pacific Flyway Council management plan for this population is no longer relevant. The current management plan relies on the NATSS to assess population status. This was a cooperative, range-wide survey conducted at 5-year intervals by federal, state, provincial, and private cooperators across the northern U.S. and Canada during 1968–2015 to monitor status of trumpeter swans in North America (Groves 2017). The NATSS included counts of RMP trumpeter swans to include both the Canada and U.S. breeding segments; however, this survey was formally discontinued in 2019.

An Informational Note was presented to Council in February 2020 (Note 2) outlining how discontinuation of the NATSS will hamper the ability of the Pacific Flyway Council and others to monitor and manage RMP trumpeter swans. Trumpeter swans are exposed to limited take in the Pacific Flyway via legal harvest in three states (i.e., Montana, Nevada, and Idaho). While the annual U.S. Fall Trumpeter Swan Survey (FTSS) is an operational survey with consistent methodology, it only provides an index of abundance for the U.S. breeding segment of RMP trumpeter swans. Consequently, a reliable index of the Canada breeding segment is needed.

The Subcommittee worked extensively with the USFWS Migratory Bird Program to explore alternative methods to monitor RMP trumpeter swan population abundance and trends. The Waterfowl Breeding Population and Habitat Survey (WBPHS) is annually conducted and can provide a reliable and cost-effective method to obtain a baseline assessment of RMP trumpeter swan population status in Canada. This method will provide a revised population objective for RMP trumpeter swans.

The WBPHS and NATSS have different spatial coverages and estimation procedures; therefore, abundance estimates are not directly comparable between surveys. However, the WBPHS provides an index to relative abundance with no additional survey time or costs. Trumpeter swan abundance indices from the WBPHS will use all existing data from the WBPHS (beginning in 2000) with truncated spatial coverage to include breeding trumpeter swans and exclude tundra

swans to the extent possible. More specifically, the WBPBS trumpeter swan indices will be an index of breeding trumpeter swans (i.e., nesting adults and subadults in May), in Canada, derived using the following criteria (Dooley 2025).

- 1) Use an index of breeding swans (vs. total swans, which also includes swans in flocks) to reduce inclusion of tundra swans; specifically, 2 x singles + 2 x number of pairs.
- 2) Use WBPBS strata from southern Alberta to central Northwest Territories (i.e., strata 15, 16, 17, 18, 20, 26, 27, 28, 29, 75, 76, 77; Figure 1 in Dooley 2025).
 - a. Northern portions of Northwest Territories (strata 13 and 14) will not be included to reduce inclusion of tundra swans.
 - b. Montana strata (41 and 42) will not be included because portions of those strata occur outside the breeding delineation of RMP trumpeter swans.
- 3) Using a visibility correction factor of 1.

Dooley (2025) summarized swan densities and stratum abundance estimates from WBPBS data during 2000–2024. Average relative abundance was 6,262 swans and ranged from 2,068 in 2000 to 11,439 in 2019 (Table 1). Abundance of breeding swans has increased since 2000. The log-linear trend estimate (annual percent change) was 4.9% (95% CI = 3.3–6.5%). Estimates of breeding swans for most individual strata similarly showed an increasing or stable trend, and the majority of swans were observed in strata 15, 16, 17, 76, and 77 (Figure 1). While the WBPBS does not cover the full RMP trumpeter swan range, it does provide an index for birds that summer in Canada.

The NATSS and WBPBS have similar trends with low levels occurring in the early 2000s and show continued population growth since. These low population levels observed in the early 2000s represent a minimum population threshold which will be used to establish a baseline for the current metric and should relative abundance using the WBPBS index decrease below 3,000 swans in the Canada segment, Council will work with partners to investigate the reason for decline and evaluate population status from all sources of information including the possibility of conducting a population specific survey. This population threshold is slightly greater than the lowest WBPBS estimate, and an appropriate value to trigger a management response.

The RMP Trumpeter Swan Subcommittee will continue to monitor results of the WBPBS and report findings and recommendations to Council for review and possible action.

Figure 1. Waterfowl Breeding Population and Habitat Survey indices of breeding swans (2 x singles + 2 x number of pairs) within strata 15–18, 20, 26–29, and 75–77 during 2000–2024. Shown are individual strata indices (multi-colored lines) and total indices (all strata combined; black). The log-linear trend estimate (annual percent change) of the total indices is shown in the top left corner (+4.9%).

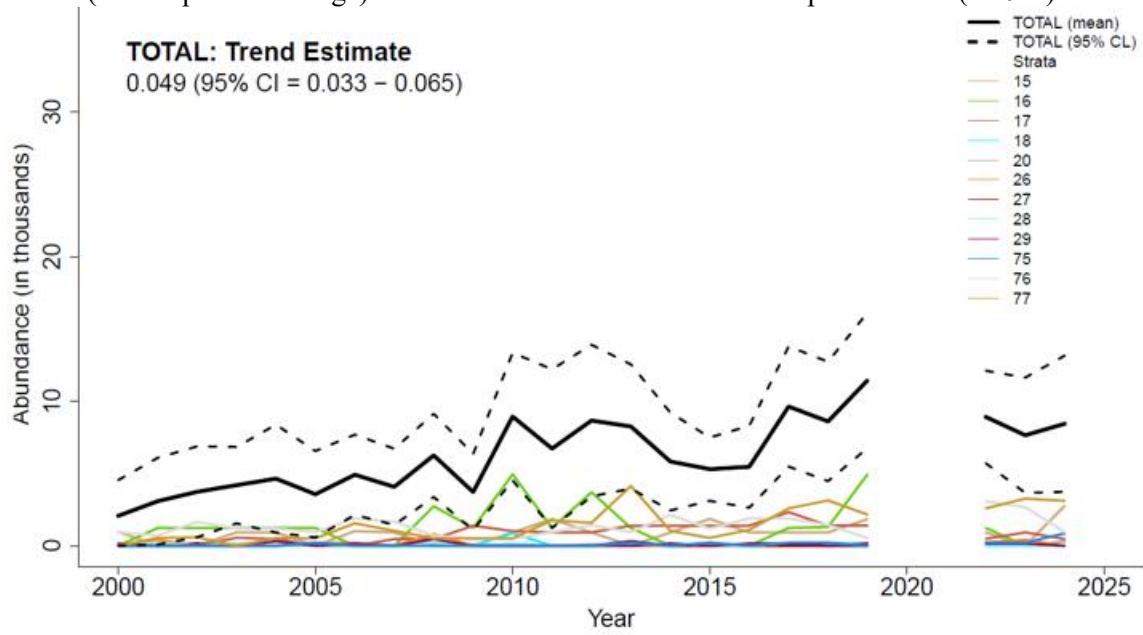


Table 1. Waterfowl Breeding Population and Habitat Survey indices of breeding swans (2 x singles + 2 x number of pairs) within strata 15–18, 20, 26–29, and 75–77 during 2000–2024. Included are the estimate, standard error (SE), and 95% lower and upper confidence intervals (LCI and UCI).

Year	Estimate	SE	95% LCI	95% UCI
2000	2,068	1,263	0	4,542
2001	3,082	1,528	88	6,076
2002	3,731	1,603	590	6,872
2003	4,191	1,347	1,550	6,832
2004	4,641	1,903	911	8,371
2005	3,563	1,524	576	6,549
2006	4,912	1,414	2,140	7,684
2007	4,075	1,343	1,444	6,707
2008	6,252	1,468	3,376	9,129
2009	3,716	1,342	1,086	6,347
2010	8,937	2,249	4,529	13,346
2011	6,717	2,798	1,233	12,200
2012	8,658	2,674	3,416	13,899
2013	8,246	2,190	3,954	12,539
2014	5,825	1,725	2,443	9,206
2015	5,298	1,117	3,108	7,488
2016	5,461	1,443	2,632	8,289
2017	9,627	2,119	5,473	13,781
2018	8,599	2,105	4,472	12,725
2019	11,439	2,390	6,755	16,123
2020				
2021		No Survey		
2022	8,906	1,633	5,706	12,106
2023	7,639	2,034	3,653	11,626
2024	8,436	2,403	3,727	13,146

References

Dooley, J. L. 2025. Waterfowl Breeding Population and Habitat Survey indices of breeding swans in Alberta and South-central Northwest Territories, 2000-2024. Unpublished document, presented to the Pacific Flyway Study Committee.

Groves, D. J. 2017. The 2015 North American trumpeter swan survey. U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Juneau, AK. Unpublished report.

Addendum to Revise the Population Objective for Rocky Mountain Population Trumpeter Swans – September 10, 2025

This addendum provides a revised population objective for Rocky Mountain Population trumpeter swans. A revised objective was necessary because the existing population monitoring program in the Pacific Flyway Council management plan for this population no longer exists. The current management plan recommends the North American Trumpeter Swan Survey (NATSS) to assess population status, but this survey was discontinued in 2020. However, the Waterfowl Breeding Population and Habitat Survey (WBPHS) is still conducted annually. While the spatial coverage of the WBPHS is different than the NATSS, analyses indicated abundance and trend estimates for RMP trumpeter swans were relatively similar (Dooley 2019).

For the Rocky Mountain Population of trumpeter swans

Maintain relative abundance of at least 3,000 RMP trumpeter swans in the Canada breeding segment using an index from the Waterfowl Breeding Population and Habitat Survey (WBPHS) (to include strata from southern Alberta to Central Northwest Territories).

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Claire Gower



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 18 — Harvest Management Working Group Priorities

Recommendation

The Pacific Flyway Council (Council) recommends no change to Harvest Management Working Group (HMWG) priorities for 2026.

Justification

Each year the HMWG develops a list of work priorities for the upcoming year. Flyway councils are asked to review and approve this list and suggest any necessary modifications. Recommendations are then forwarded to the Service Regulations Committee (SRC) for consideration at their fall regulatory meeting. All priorities on the 2025 list remain for 2026 and the focus on reconsideration of North American duck harvest management precludes consideration of new priorities for 2026.

Council recognizes that the Division of Migratory Bird Management (DMBM) will likely continue to face budget constraints, and difficult decisions regarding long-term implementation of operational programs may be necessary. Council also recognizes cooperative monitoring programs for North American migratory game birds are vitally important for conservation.

Proposed Pacific Flyway Council 2026 Harvest Management Working Group Priorities

Priority rankings, project leads identified for technical work:

Highest Priorities (Urgent and Important)

- Reconsideration of North American Duck Harvest Management (Flyway Councils, DMBM)
- Evaluate implications of changes in monitoring frequency on adaptive harvest management performance (Flyway Councils, DMBM, USGS)
- Evaluation of Experimental two-tier license system (Central Flyway, DMBM)
- Scaup AHM revision/Assessment of diving duck harvest capacity (Flyway Councils, DMBM)

Long-range Priorities (Non-urgent, but Very Important)

- Time-dependent optimal solutions to address system change (USGS, DMBM)

Additional Priorities

- Revisiting the Northern Pintail AHM Strategy (Flyway councils, USGS, DMBM)

Council recognizes reconsideration of duck harvest management in the United States is the

highest priority for DMBM and with the reduced capacity under which they are operating, this issue will demand nearly 100% of staff time. Council reiterates their commitment to assist the Service to develop innovative solutions to advance conservation and management of North American duck populations through the Adaptive Harvest Management Task Force or other avenues. However, until such time that agreed upon changes are implemented, Council asserts that all partners continue to collect information necessary to inform the current harvest management system.

While Council recognizes DMBM has few resources to devote to other priorities in 2026, we do believe a revision of the Scaup AHM strategy is warranted. This strategy was first implemented in 2008, and predictive harvest models were updated in 2013. Given advancements in population modeling and lessons learned during revision of the Northern Pintail AHM strategy, we believe the framework exists to revise and improve the scaup strategy. Recognizing the reduced capacity for DMBM, Council is committed to collaborating with the other councils to work towards a revision.

Adoption
Pacific Flyway Study Committee
September 10, 2025

Contact: Brandon Reishus & Jason Schamber



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 19 — Study Committee Representation on the NAWMP Science Support Team and Harvest Management Working Group

Recommendation

The Pacific Flyway Council (Council) approves the following changes in Study Committee representation to the North American Waterfowl Management Plan (NAWMP) Science Support Team and the Harvest Management Working Group

- NAWMP Science Support Team – Jason Jones (Utah) will replace Kyle Spragens (Washington)
- Harvest Management Working Group – Kyle Spragens (Washington) will replace Jason Schamber (Alaska)

Justification

The Study Committee has assigned representation to the NAWMP Science Support Team and Harvest Management Working Group based on interest and expertise. Rotation of these duties is necessary to balance workload among members and satisfy requests for Pacific Flyway representation. The above assignment changes for Pacific Flyway representation are necessary due to anticipated future travel challenges for Alaska and to maintain assignment workload for Washington. Travel expenses for representation to these working groups are covered by Council funds.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Jason Schamber

Jason Jones, Chair

Pacific Flyway Council
September 12, 2025

Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 20 — Mallard Movement Research Funding

Recommendation

The Pacific Flyway Council (Council) recommends a special assessment to Alaska, Oregon, and Washington to fund a pilot project examining movements and habitat use of the Alaska breeding substock of mallards.

Funds will be used to purchase 50 GPS-GSM transmitters to be deployed on wintering mallards in northwest Oregon and western Washington in February 2026. Estimated costs of transmitters are approximately \$66,000, and each state (Alaska, Oregon, and Washington) would contribute equally.

Justification

Mallards comprise approximately 30% of the annual harvest within the Pacific Flyway and are typically the most harvested waterfowl species in each state. Additionally, their status determines the overall duck season framework in the western mallard model. Under current Adaptive Harvest Management (AHM) protocols, the western mallard stock is comprised of two substocks: those breeding in Alaska and those breeding in the southern Pacific Flyway (British Columbia, Washington, Oregon, and California). The Alaska substock accounts for over 50% of total western mallard estimates, yet long-term estimates indicate the Alaska substock has been declining since the 2000s. Examination of band returns from mallards banded in Alaska shows that most recoveries on wintering grounds are concentrated in western Washington and northwest Oregon.

The states of Alaska, Oregon, and Washington, as well as other partners such as Ducks Unlimited have been discussing the need to better understand movements and habitat use for Alaska breeding substock of mallards to inform several key questions that would inform assumptions and information gaps, including but not limited to:

- Identification of molting concentrations in Alaska to target pre-season banding operations. Limited banding data, and difficulty in meeting annual banding quotas, for the Alaska substock prevents independent estimates of survival and reproductive rates, particularly at the regional level. Efforts to locate new concentrations of molting mallards to band in Alaska have been unsuccessful thus far, given the sheer size of the landscape and staff limitations. This effort will help managers identify potential mallard banding locations.

- Better understanding departure times of migrant mallards in northwest Oregon and western Washington in relation to breeding population surveys for resident mallards. In some years, breeding surveys in western Oregon and Washington encounter flocks of mallards when most breeding mallards should be distributed in pairs throughout appropriate habitat. These large flocks may artificially bias breeding population estimates high and increase uncertainty of estimates. Marking a sample of wintering mallards will help managers understand mallard migration departure patterns in the region and help determine if flocks encountered during surveys are migrant birds, or flocks of resident mallards. This information will help improve waterfowl breeding population survey timing and data/observation interpretation.

The special assessment would be used to purchase transmitters to be deployed on mallards during February 2026 on the wintering grounds. Trapping efforts would focus on sites in the Pacific Northwest, specifically sites west of the Cascade Range to maximize the likelihood of a marked mallard migrating to Alaska. This pilot effort will help determine breeding ground settling patterns of mallards wintering in this region and help inform sample size considerations for what is anticipated to be a larger, formal collaborative research project among partners. Additionally, the scope of this project could be expanded to include other flyway states to better understand movement patterns of the western mallard stock not necessarily originating from the Alaska substock.

Expected Benefits: 1.) Identify pre-season banding locations for mallards in Alaska. Additional banding over multiple years will increase the likelihood of evaluating survival and reproductive rates of the Alaska substock; 2.) Improved understanding of the ratio of marked mallards that leave the wintering grounds and migrate to Alaska or elsewhere. These patterns in migration will provide additional insight into flyway connections and improve survey implementation; 3.) A proposed remotely sensed wetland habitat evaluation may also provide a metric that could be incorporated into western mallard AHM in future years; 5.) Many additional questions may be addressed with a future large database of mallard movements, such as evaluating habitat restoration outcomes, identifying locations of potential conservation investments, and determining how drought impacts waterfowl distribution.

Adoption

Contact: Brandon Reishus

Pacific Flyway Study Committee
September 10, 2025



Jason Jones, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 21 — Budget Amendment for Pacific Flyway Support of the Rocky Mountain Population of Sandhill Cranes Annual Fall Recruitment Surveys

Recommendation

The Pacific Flyway Council (Council) recommends a line-item increase from \$1,500 to \$3,000 in the Council budget starting in calendar year 2026 to support the annual Rocky Mountain Population (RMP) sandhill crane recruitment surveys.

Justification

The Pacific and Central Flyway Management Plan for RMP sandhill cranes specifies allocation of allowable crane harvest based on fall. Annual RMP crane surveys across the breeding and staging grounds are necessary to provide crane hunting opportunities and allocate allowable harvest to states in the Pacific Flyway. Costs of the annual recruitment survey are increasing and additional funds are needed to maintain the annual surveys.

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Dr. Larisa Harding

Jason Jones, Chair

Pacific Flyway Council
September 12, 2025

Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 22 – Budget Recommendation for NTC Partners Meeting Recommendation

The Pacific Flyway Council (Council) recommends funding a line item of \$15,000 in the 2026 budget to support the third regulatory meeting with partners throughout the Pacific Flyway to establish priority initiatives and expansion on current initiatives for 2027-2032. Further supporting information describing the Nongame Technical Committee (NTC) Priority Initiatives (2021-2025) resulting from the 2019 Partners Meeting is provided below in the background section.

Justification

The NTC last hosted a meeting of western bird conservation partners in December 2019. This was the second NTC-hosted forum to implement the 2011 recommendations from the National Flyway Council and U.S. Fish and Wildlife Service to expand the role of the nongame technical committees. The goal of this meeting was to “Enhance bird conservation and management across the Pacific Flyway by identifying common priorities and through coordination and collaboration between the Pacific Flyway Nongame Technical Committee and regional partners.”

This meeting was highly successful and informed the prioritization of NTC work for 2021-2025 (Table 1). In late 2026, the NTC will reconvene with partners for the third Partners Meeting to inform priority initiatives over the subsequent five years. These meetings help to ensure continued buy-in from partners throughout the Flyway to advance shared conservation goals and are foundational to the success of the work of the NTC. Funding support is needed to ensure this effort is effective, including facilitation, translation, travel support, and logistics. These meetings occur only once, approximately every five years, and investments in this meeting directly impact all work of the NTC.

Estimated costs for the 2026 Partners Meeting include facilitation (\$4,000), translation (up to \$6,000), travel support (up to \$8,000), and logistics (up to \$5,000). Attendee registration fees are expected to offset a portion of expenses, particularly logistics and travel support, with an anticipated contribution of approximately \$7,500–\$12,000 based on projected participation. This additional revenue from guest registrations will further reduce costs for shared expenses such as catering and materials. With these anticipated amounts, the total funding need from the Council is reduced to approximately \$15,000, ensuring core costs such as facilitation and translation are fully covered while leveraging registration to share remaining costs.

Funding is requested at an amount of \$15,000.

Background

In cooperation with partners through the Pacific Flyway, the Nongame Technical Committee (NTC) developed four Priority Initiatives that were approved by the Pacific Flyway Council in March of 2021 (Table 1). The four NTC Priority Initiatives galvanized the work of the Flyway over the last five years, and focused work of the NTC and partners to make meaningful progress on each item.

NTC Partners Meeting

In 2026, the NTC will reconvene with partners to assess progress made on items listed in Table 1 and determine how to revise the list of Priority Initiatives to inform the next five years of work.

Table 1. Priority Initiatives and tasks for implementation by the NTC over the last five years (2021–2025).

Priority Initiative	Tasks
<p>1. Landbird migratory pathways and full life cycle conservation</p>	<ul style="list-style-type: none"> ● Identify priority bird species (including nongame, game, and shorebirds) and research questions with movement/connectivity data needs that could be addressed by Motus or other tracking technologies ● Crosswalk species from Central America/Mexico prioritization efforts with Pacific Flyway priority bird list to identify commonalities in research and conservation needs ● Engage in Partners in Flight Western Motus Initiative to develop a framework for identifying and prioritizing Motus station locations for a flyway-wide network to track both broad- and local-scale bird movements ● Pursue funding (e.g. C-SWG) to support research on migratory movements of priority bird species, including development of a Motus network and/or expansion of other tracking technologies in the Pacific Flyway ● Use bird movement data to identify stopover and wintering areas for priority bird species, and to direct future conservation efforts
<p>2. Shorebird and wetland species monitoring and conservation, including movement among and connectivity of wetland habitats</p>	<ul style="list-style-type: none"> ● Identify key/umbrella shorebird and wetland bird species of interest to states—list will be used to direct the study of important waters, address management needs, inform design of tracking and connectivity studies, and identify threats across the full life cycle ● Pursue funding to support research on movements of priority shorebird and wetland birds (overlap with Landbird initiative) ● Support and lead development of Flyway-endorsed site for sharing telemetry/movement data (overlap with Landbird initiative) ● Support National Audubon Society effort to develop a questionnaire for managers of NWRs and state-managed areas regarding staff capacity, infrastructure, local threats, legal mandates for specific species, and ability to move water; assist in distribution of questionnaire to state and federal land managers ● Participate on working group to assess expansion of Council-endorsed Pacific Flyway Shorebird Survey to include interior west; including repeat of synoptic surveys conducted 1989–1995

3. Grassland species monitoring and conservation	<ul style="list-style-type: none"> ● Identify grassland species of concern in the Pacific Flyway that have data needs, and prioritize these species for future monitoring actions
4. Aerial insectivore declines	<ul style="list-style-type: none"> ● Identify priority aerial insectivore species in Pacific Flyway through a crosswalk of the North American aerial insectivores in steep decline with SGCN and other state priority species ● Summarize the most useful strategies for sampling prey of aerial insectivores, with focus on priority species; provide a synthesis of available protocols ● Engage with pesticide and insect experts to gather input on what the Pacific Flyway NTC can do to address aerial insectivore declines

Adoption

Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Emily VanWyk



Russell Norvell, Chair

Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 23 — 2026 Budget

Recommendation

The Pacific Flyway Council (Council) adopts the attached budget authorizing Council expenditures in calendar year 2026.

Justification

The Nongame Technical Committee and Study Committee are charged with preparing a calendar year budget for Council consideration. The budget includes administrative expenses, travel expenses for Flyway representation, and special project expenses.

The proposed 2026 budget includes \$160,890 in anticipated expenses. Expected income of \$219,890 includes \$49,500 from member assessments (11 states; \$4,500 each), \$6,390 from NABCI assessments (9 states, excluding Colorado and Wyoming; \$710 each), \$66,000 from an Alaska substock mallard marking project special assessment (3 states - \$22,000 each) and an estimated carryover of \$97,000 from calendar year 2025.

Changes to the 2026 budget from 2025 include: an increase from \$1,500 to \$3,000 to support the annual Rocky Mountain Population sandhill crane recruitment survey, a one-time special assessment of \$66,000 to support an Alaska substock mallard marking project, and a one-time item for \$15,000 to support the 2026 Nongame Technical Committee Partners Meeting. Since 2013, member assessments of \$4,500 have provided a base budget. This budget recommendation does not require an increase in the base assessment for 2026.

Pacific Flyway Council Budget - Calendar Year 2026

Function	Attendance	Notes	Projected Amount
A. Council, SC/NTC, and Regulatory Functions			
National Flyway Council dues		1	\$ 2,000
Pacific Flyway Council March			
PFC Secretary (AK)	1 meeting, 1 person		\$ 1,200
SC and NTC Chairs (NV)	1 meeting, 2 persons		\$ 2,400
AHM Working Group (OR, WA)	1 meeting, 2 persons		\$ 2,400
NTC - SRC/AFWA BCC (NTC support; NV)	1 meeting, 1 person		\$ 1,200
	Subtotal		\$ 9,200
B. North American Waterfowl Management Plan			
NAWMP Science Support Team (UT)	1 meeting, 1 person		\$ 1,200
Arctic Goose Joint Venture			
Management Board (ID)	1 meeting, 1 person		\$ 1,200
Technical Committee (ID)	1 meeting, 1 person		\$ 1,200
Sea Duck Joint Venture			
Management Board (AK)	1 meeting, 1 person		\$ 1,200
Cont. Technical Team (WA)	1 meeting, 1 person		\$ 1,200
	Subtotal		\$ 6,000
C. Other Flyway Representation			
Special Projects as Needed	2 meetings, 2 persons		\$ 4,800
Mourning Dove Task Force (AZ, NV)	1 meeting, 2 persons		\$ 2,400
Human Dimensions Working Group (CO, NV)	1 meeting, 2 persons		\$ 2,400
PIF Western Working Group (OR)	2 meetings, 1 person		\$ 2,400
AMBCC Representation (OR)	1 meeting, 1 person		\$ 2,500
	Subtotal		\$ 14,500
D. Operational Surveys and Projects			
PF Duck BPOP Survey Expansion		2	\$ 10,000
PF Supplemental Duck Banding			\$ 7,500
Fall RMP Crane Recruitment Survey			\$ 3,000
Engagement Subcommittee			\$ 12,600
NABCI Coordination Support			\$ 6,390
	Subtotal		\$ 39,490
E. Administrative Costs			
Misc. expenses including production of minutes, etc.		3	\$ 500
PFC Website maintenance			\$ 200
	Subtotal		\$ 700
F. One-Time or Time-Limited Special Projects			
NTC Survey Support for priority initiatives (2025-2027)			\$ 10,000
NAWMP Anniversary Reception Support			\$ 1,500
2026 NTC Partners Meeting			\$ 15,000
Alaska Substock Mallard Marking Project (AK, OR, WA)			\$ 66,000
	Subtotal		\$ 92,500
BASE BUDGET			
	Re-occurring annual costs Sections A-E		\$ 69,890
	Time limited special project cost, Section F		\$ 92,500
		TOTAL	\$ 162,390
REVENUE			
	Estimated carry-forward from 2025		\$ 98,000
	Council assessments 2025		\$ 49,500
	NABCI Assessments - 9 states		\$ 6,390
	Alaska Substock Mallard Marking Project (AK, OR, WA)		\$ 66,000
	Southern Wings Assessment - voluntary participation		\$ -
		TOTAL	\$ 219,890
Pacific Flyway Council assessments to the 11 member states are based on projected expenses for flyway representation in Sections A - C, plus costs of operational PF-sponsored duck and crane surveys and duck banding in Section D and administrative costs in Section E. This provides for base budgeting at \$49,500 per year (11 states @ \$4,500).			
CY 2026 NOTES:			
1. NFC assessment of all flyways for Secretary travel and other expenses.			
2. PF-sponsored surveys and banding included in base budget and assessment assumptions.			
3. No expenses are budgeted for facilities and services for regular meetings; costs recovered in registration fees.			

Adoption
Pacific Flyway Study Committee
September 10, 2025

Contact: Jeff Knetter



Jason Jones, Chair

Pacific Flyway Nongame Technical Committee
September 10, 2025
Russell Norvell, Chair



Pacific Flyway Council
September 12, 2025



Blair Stringham, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Recommendation 24 — Letter of Recognition for Dave Olson

Recommendation

The Pacific Flyway Council (Council) recommends sending the attached letter to Dave Olson (United States Fish and Wildlife Service – R6) in recognition of his service to the Pacific Flyway technical Committees and Council.

Justification

See attached letter

Adoption

Pacific Flyway Study Committee
September 10, 2025

Contact: Claire Gower

Jason Jones, Chair

Pacific Flyway Nongame Technical Committee
September 10, 2025
Russell Norvell, Chair

Pacific Flyway Council
September 12, 2025

Blair Stringham, Chair

September 12th, 2025

Dave Olson
1080 69th Street
Boulder, CO 80303

Dear Dave,

On behalf of the Pacific Flyway Council (Council), the Pacific Flyway Study Committee (SC) and the Pacific Flyway Nongame Technical Committee (NTC) we would like to take this opportunity to recognize your contributions to conservation and management of migratory birds in the Pacific Flyway. You have been a valued member of the technical committees, and your contributions have been substantial.

Contributions throughout your 31-year career with the U.S. Fish and Wildlife Service (Service) have been significant; serving in the migratory bird research program, working within the National Wildlife Refuge system in numerous states, and most recently, your role in the Region 6 migratory bird program. The species of migratory birds with which you have worked and the variety of roles you have served within the Service are extensive. You have provided leadership and technical expertise to both Pacific Flyway technical committees on species specific management, waterfowl and wetland ecology, waterfowl harvest regulations, banding, and incidental take permits.

You have been instrumental to trumpeter swan monitoring and reintroduction programs for several decades, and we appreciate your leadership to coordinate and facilitate the fall and winter trumpeter swan surveys, which was an impressive annual undertaking. Your role as liaison between the Service, State agencies, and nonprofits was valued by the Greater Yellowstone Trumpeter Swan Working Group where State agency biologists looked to you for your historical perspectives and guidance on restoration programs. Your representation provided balanced, honest, and objective advice.

Your dedication has resulted in coordination and implementation of conservation and management efforts focused on shared bird resources in the Pacific Flyway and across western North America. During your time as a Service representative on Pacific Flyway Council technical committees, you contributed significantly to the revisions of numerous management plans, most notably the Pacific and Central Flyways' Rocky Mountain Population Sandhill Crane Management Plan and the extensive revision of the Rocky Mountain Population Trumpeter Swan Management Plan. You were instrumental in leading efforts to greatly improve cinnamon teal banding, which resulted in a greater understanding of cinnamon teal movements and survival and harvest rates throughout the West. You assisted development of the management of conflicts associated with double-crested cormorants Federal Environmental Impact Statement (FEIS) and Record of Decision (ROD), addressing stated needs from the Pacific Flyway Council, Central Flyway Council and others, also serving on the double-crested cormorant cross-flyway monitoring team. You have also contributed significantly in the academic arena providing insight to numerous university graduate students working on migratory game birds.

On behalf of the Council and technical committees, thank you for your contributions. Your efforts are very much appreciated, and we are thankful for your long-standing commitment to the Pacific Flyway Council and migratory bird conservation.

We wish you all the best in your retirement and your upcoming endeavors.

INFORMATIONAL NOTES

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Informational Note 1 — Allocation of Captive-reared Trumpeter Swans to Release Sites

In February 2025, Council approved allocation of captive-reared trumpeter swans for release at approved restoration sites. The actual number of cygnets available for release depended upon hatching success during spring 2025.

Following guidelines in the Pacific Flyway Management Plan for Rocky Mountain Population (RMP) trumpeter swans, and as recommended by Council, state leads discussed an equitable allocation of available cygnets in early July 2025.

Wyoming Wetlands Society (WWS) is the primary source of captive-reared trumpeter swans of RMP genetic origin for release at approved sites. During 2025, WWS produced 27 RMP origin cygnets for allocation. The recommended allocation of these cygnets to approved release sites, is as follows:

Middle Madison, Montana	9
Teton Basin, Idaho	9
Yellowstone National Park	9

Summer Lake in Oregon did not request cygnets from WWS, but there are 12–13 captive-reared trumpeter swan cygnets of Pacific or mixed population genetic origin that were available for allocation in 2025. These swans were hatched at various (seven) zoos or waterfowl conservancies across the country. Per Council direction, they are not releasable in Idaho, Montana, or Wyoming; Summer Lake Wildlife Area – Oregon is the only approved release site outside of those states. These swans will be moved to an over-wintering facility at Zoo Idaho in Pocatello, Idaho early this fall and released at Summer Lake Wildlife Area in June 2026 as yearlings.

Four yearlings were released on Eden reservoir (Sweetwater County) as part of the Wyoming Big Sandy project in mid-July 2025. This is the newest incoming project approved for allocation so it will not be receiving cygnets this year, to give the other projects a full allocation.

No other swans are available for allocation during 2025.

Adoption
Pacific Flyway Study Committee
September 10, 2025

Contact: Claire Gower

A handwritten signature in black ink, appearing to read 'Jason Jones', written over a horizontal line.

Jason Jones, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Informational Note 2 — Pacific Flyway Nongame Technical Committee 2026 Work Plan

The Pacific Flyway Nongame Technical Committee (NTC) updated its 2026 work plan to reflect updates and new and completed efforts. Notable changes include:

- Updated "Eagle Take Allocation" to "Eagle Take Falconry Reporting" because the allocation portion of this rotated out of the Pacific Flyway
- Added "American White Pelican Management Strategy" because it needs to be updated
- Added "Double-crested Cormorant Monitoring Strategy" to reflect changes in the US Fish and Wildlife Service 2022 Report
- Updated "MBTA Incidental Take" to "paused"
- Completed the Yellow-billed Cuckoo Implementation and Reporting
- Updated "Pursue funding for assessment of migratory pathways and stopovers as "complete". The NTC did not need to pursue funds because this project was funded through other funding sources.
- Updated Conservation Partners Meeting to "Planned" in 2026

Adoption

Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Michelle Kemner

Russell Norvell, Chair

Nongame Technical Committee Work Plan																					
Task	Status	2026				2027				2028				2029				2030			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Regulatory Needs																					
Peregrine Falcon Take Allocation	Annual	■				■				■				■				■			
Eagle Take Falconry Reporting*	Annual	■				■				■				■				■			
MBTA Incidental Take	On Pause																				
Other Regulatory Input	Annual	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Data Management																					
AKN Colonial Waterbird Data Upload	In progress	■	■			■	■			■	■			■	■			■	■		
Monitoring Plan Development																					
Update AWPE Mangement Strategy	In progress	■	■	■																	
Update DCCO Monitoring Strategy	In progress	■	■	■																	
Monitoring and Reporting																					
DCCO Survey Implementation/Reporting	In progress																				
AWPE Survey Implementation/Reporting	In progress	■	■	■	■	■	■	■	■												
YBCU Survey Implementation/Reporting	Complete																				
Intermountain West Shorebird Survey	In progress	■	■																		
Representation																					
NAWMP Human Dimensions Working Group	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Central Flyway Liaison	Annual	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Conservation Partners Liaison	Annual	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Habitat Committee	Potential	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
PIF WWG Executive Committee	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
AKN Steering Committee	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Waterbird Conservation Council	Potential	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
AFWA Bird-Fish Conflict Working Group	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
USFWS PEFA Analysis Working Group/Rule	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
National Cross-Flyway DCCO Monitoring	Complete																				
Coordination																					
Coordination and Communication with	Annual	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Revise Work Plan	Annual	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Review and Refine Priorities	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Saline Lakes USGS/USFWS Coordination	Potential	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Southern Wings Fund Allocation	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Other																					
Pursue funding for assessment of migratory pathways and stopovers	Complete																				
Implement wetland connectivity assessment	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Conservation Partners Meeting	In progress	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Black planned
 Hash tentative

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Informational Note 3 — NTC Priority Initiative 1: Landbird Migratory Pathways and Full Life Cycle Conservation (2021-2025)

Background

Through partnerships and collaboration in the Pacific Flyway, the Nongame Technical Committee (NTC) identified full life conservation in landbirds as one of four Priority Initiatives (please refer to the Budget Recommendation for Priority Initiatives). The Flyway platform is an ideal conduit for identifying landbird migratory pathways and their conservation. For this initiative, there were five action items: identify species that could be addressed with Motus, crosswalk species to identify commonalities, engage with the Partners in Flight (PIF) Western Motus Initiative to identify regional strategies, coordinate with partners, prioritize station locations, pursue funding to support migratory movement research, and use bird movement data to identify stop-over sites.

Using a crosswalk of Species of Greatest Conservation Need (SGCN) for Pacific Flyway member states, we identified species of common conservation interest, as well as key species most suitable for tracking (Table 1) using Motus technology (<https://motus.org>). Below we summarize accomplishments related to Motus and other tools used to address full life cycle conservation.

Migratory Pathways and Full Life Cycle Conservation in the Pacific Flyway 2021-2025

Motus Technology: The benefits of Motus technology for small landbirds has been widely embraced in the Flyway by many member states (Table 1). The network in the West has expanded significantly between 2021-2025. NTC helped inform implementation of a C-SWG grant initiated by states outside of the Flyway context to garner \$875,000 for Motus expansion. The work was part of a project addressing migratory movements of multiple taxonomic groups (birds, bats, insects) and included an aerial insectivore species described in NTC Priority Initiative 4.

Many states have also individually contributed to the establishment of new receiving stations to detect tagged birds. A minimum of 140 stations have been established in the last five years in member states with more than 100 stations anticipated in the next fiscal year. Per the PIF Western Motus Initiative, expansion includes over 625 active Motus stations in the west and includes 14 countries in both hemispheres.

In a partnership with the Association of Fish and Wildlife Agencies (AFWA), United States Geological Survey (USGS), and US Fish and Wildlife Service (USFWS), the NTC members also participated in a research project to develop a Motus Prioritization Tool to identify species and important areas for Motus stations in the west. Forty species were identified as priority. The results of this project have been submitted as a draft manuscript to the journal *Ornithological Applications*.

Accomplishments with other tools and survey techniques: NTC recognizes that Motus is not the only tool available to track species’ movement and full life cycle conservation for all habitats or all species. Monitoring Avian Productivity and Survivorship (MAPS, Institute for Bird Populations) and other banding stations are operational in all states and continue to contribute to traditional tracking of landbird movements and survivorship. Similarly, MoSI stations in the northern Neotropics during the non-breeding season contribute information on the full annual cycle of birds. The advantages of these banding stations have led to the advancement of genetics studies and the development of genoscapes for several species (including Common Yellowthroat and American Kestrel in Alaska). Genoscapes can be used to identify where species are most likely to spend their winter months, thereby providing spatial targets for conservation and management of non-breeding populations.

The Breeding Bird Survey (BBS) and Integrated Monitoring in Bird Conservation Regions (IMBCR) programs continue to provide baseline data during the breeding season on many SGCN species in Pacific Flyway states. Many of our landbird species are captured in these broad-scale surveys, and this data contributed to State Wildlife Action Plan (SWAP) revisions and assessment of SGCN or Species of Greatest Inventory/Information Need.

Southern Wings: One of the Flyway’s greatest contributions to full life cycle conservation is the increase in funding and partnerships through Southern Wings. In 2019 Southern Wings contributions totaled \$2,500 (three states) and had increased to \$37,495 (eight states) in 2025 with funding directed to six projects. Support for projects on grassland birds and shorebirds on their wintering grounds highlights the importance of looking beyond conservation in breeding habitats to conservation at all stages of a bird’s life history.

The NTC has not recently sought additional funding (e.g., Competitive State Wildlife Grant) for migratory movements because agencies and their partners were able to develop financial support organically and collaboratively. An updated crosswalk between the priority species for member states, Mexico, and Central America using 2025 SGCNs will be completed this year after state SWAPs have been approved.

Table 1: High priority SGCNs for Flyway states amenable to Motus technology.

Species	# State SGCN	Motus potential	Other*
Peregrine Falcon	10		X
Northern Goshawk	10		X
Burrowing Owl	10	X	X
Willow Flycatcher	10	X	
American White Pelican	9	X	X
Snowy Plover	9	X	
Ferruginous Hawk	9	X	
Lewis's Woodpecker	9	X	
Yellow-billed Cuckoo	9	X	

Golden Eagle	9		X
Greater Sage-grouse	9		X
Flammulated Owl	8	X	
Olive-sided Flycatcher	8	X	
Spotted Owl	8		
Sandhill Crane	8		
Bald Eagle	8		
Short-eared Owl	8	X	
Sagebrush Sparrow	8	X	
Loggerhead Shrike	8	X	
Grasshopper Sparrow	7	X	
Columbian Sharp-tailed Grouse	7		X
Purple Martin	7	X	
Black Swift	7	X	
Great Gray Owl	7		X
American Bittern	6	X	
Black Tern	6	X	
Savannah Sparrow	6	X	
Brewer's Sparrow	6	X	
Pinyon Jay	6	X	X
Swainson's Hawk	6	X	X
Sage Thrasher	6	X	
Harlequin Duck	6		X
Song Sparrow (var. sub-spp)	6	X	
Long-billed Curlew	6	X	X
Black Rosy-finch	6	X	
White-faced Ibis	6	X	X

*Other technology to track migration known

Table 2: Motus Projects intended to highlight the expansion of Motus in the West by all

conservation partners (as of September 9, 2025)

State	Species tagged	Animals tagged	No. of stations	No. of projects
Alaska	5	122	8	10
Arizona	8	135	18	11
California	47	1218	127	40
Colorado	17	151	26	11
Idaho	13	70	25	5
Montana	39	1640	50	13
Nevada	6	129	8	5
New Mexico	5	114	25	7
Oregon	6	76	31	14
Utah	21	284	30	9
Washington	9	70	23	10
Wyoming	3	385	5	2

Adoption

Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Allison Begley



Russell Norvell, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Informational Note 4 — NTC Priority Initiative 2: Shorebird and Waterbird Monitoring and Connectivity (2021-2025)

In 2019, the Pacific Flyway Nongame Migratory Bird Technical Committee (NTC) and our partners identified several wetland-associated data gaps as significant limits on our ability to effectively manage and conserve wetlands for the benefit of shorebirds and waterbirds in the Pacific Flyway (please refer to the Budget Recommendation for Priority Initiatives). Specifically, the lack of information on movement pathways and migration timing between breeding and wintering areas was identified as a critical conservation gap preventing managers from documenting and prioritizing the most important sites. Efforts to evaluate the benefits of management, stochastic effects of drought, and long-term effects of climate change on wetland availability and use were also hampered by the lack of basic movement data.

The NTC has made significant inroads into the broad range of needs identified during the Partners Meeting, both collectively and as individual states. Our main regional achievement has been the successful Flyway-wide collaborative Intermountain West Shorebird Survey (IMWSS; www.imwss.org/). This identified high priority became the basis of our third collective Competitive State Wildlife Grant (C-SWG), intended to fund a concurrent shorebird survey of the interior west's network of wetlands. This challenging project is now in its third implementation year and is succeeding with wide-spread support, despite the significant logistical obstacles inherent in coordinating a near-simultaneous survey across nine states (AZ, CA, CO, ID, MT, NV, OR, UT, and WY), multiple partners, and significant funding provocations.

Equally significant, every NTC state has also worked independently and collectively on species of common Flyway concern. For example:

- In summer 2023, Washington State led a massive response effort to contain and measure a highly pathogenic avian influenza outbreak in a Caspian Tern colony in Puget Sound. The Flyway population is estimated to have been reduced by 10-14% in that single event (Haman et al. 2024), and the subsequent 2024 Flyway survey recorded the lowest population estimate since 1991 (McGuire et al. 2025). NTC states contributed colony data to this FWS ten-year census.

- Since 2021, Alaska and Washington have invested significant and on-going resources in declining Red Knots, investigating migratory stopovers and diet studies from across the Pacific flyway including sites in Alaska, Washington, and Mexico.
- In 2021, California initiated a multi-year project to inform water management actions for mitigating the impacts of prolonged drought on migratory shorebirds across the Central Valley and other regions of the Pacific Flyway in partnership with Point Blue Conservation Science, The Nature Conservancy, Audubon California, and the University of California Davis. The project is 1) assessing the body condition of shorebirds, with an initial focus on Dunlin (*Calidris alpina*) a relatively common but declining species across the winter period and examining patterns of change across years with different habitat availability; 2) Using Motus tagging to assess shorebird movement patterns in winter and across seasons and years, including departure and arrival dates of Dunlin and rates of return to the Central Valley in subsequent years; and 3) Developing and implementing a long-term shorebird population monitoring and assessment program on CDFW lands. To date over 200 shorebirds have been affixed with Motus tags and assessed for body condition through physical examinations and blood analyses.
- Many NTC states annually monitor rookeries and colonies of nesting waterbirds (including pelicans, cormorants, grebes, egrets, herons, and ibis) across the Flyway and are working to collate data in the Avian Knowledge Network. Several states (e.g., ID, UT) have become leaders in banding waterbirds (color-marking and telemetry).
- All NTC states have updated and reviewed shorebird and waterbird data for our SWAP revisions, providing a refreshed and comprehensive view of current priorities.
- Every state has actively expanded the Motus network in the Flyway since 2023, greatly expanding our ability to detect tagged shorebird and waterbird species.
- Nevada successfully sought a >\$1 million NFWF grant for Desert Terminal Lake mapping of historic/current habitat and developing/boosting/monitoring capacity through state/federal/NGO partnerships, and has acquired significant land and water rights in support of critical wetlands in the Lahontan Valley.
- Oregon works extensively to track trends and impacts to listed salmonids in the Columbia River Estuary - an area of Flyway-wide significance for several waterbirds of conservation and management interest. Related to this effort, Oregon tracks populations of these waterbirds statewide.
- Finally, many states have invested in growing our mutual capacity by supporting graduate students on relevant shorebird/waterbird projects such as analyzing long-term data sets, investigating regional wetland connectivity, and researching the bioenergetic and disease consequences of wetland management.

Publications

Haman K.H., S.F. Pearson, J. Brown, L.A. Frisbie, S. Penhallegon, A.M. Falghoush, R.M. Wolking, B.K. Torrevillas, K.R. Taylor, K.R. Snekvik, S.A. Tanedo, I.N. Keren, E.A.

Ashley, C.T. Clark, D.M. Lambourn, C.D. Eckstrand, S.E. Edmonds, E.R. Rovani-Rhoades, H. Oltean, K. Wilkinson, D. Fauquier, A. Black, and T.B. Waltzek. 2024. A comprehensive epidemiological approach documenting an outbreak of H5N1 highly pathogenic avian influenza virus clade 2.3.4.4b among gulls, terns, and harbor seals in the Northeastern Pacific. *Front. Vet. Sci.* 11:1483922.

McGuire, M., A.G. Peck-Richardson, and R.A. Orben. 2025. Project Report: 2024 Pacific Flyway Region Caspian Tern Population Monitoring. A report submitted to the U.S. Fish and Wildlife Service, Portland, Oregon. 34 pp.

Adoption
Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Russell Norvell

A handwritten signature in black ink, appearing to read 'Russell Norvell', written in a cursive style.

Russell Norvell, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Informational Note 5 — NTC Priority Initiative 3: Grassland Birds (2021-2025)

Background

In cooperation with partners through the Pacific Flyway, the Nongame Technical Committee (NTC) developed four priority initiatives that were approved by the Pacific Flyway Council in March of 2021, including grassland species monitoring and conservation (please refer to the Budget Recommendation for Priority Initiatives). For this initiative, there was only one action item presented in 2021: to identify grassland species of concern in the Pacific Flyway that have data needs, and prioritize these species for future monitoring actions.

The first step was to run a crosswalk of Species of Greatest Conservation Need (SGCN) of member states to identify key species as potential targets for multi-state conservation (Table 1). Further crosswalks with priority lists from partner agencies (e.g. USFWS Birds of Conservation Concern list) helped to enhance the utility of this product. To assess progress made on this action item, the NTC compiled information to identify conservation opportunities that address steep declines of grassland birds across the Pacific Flyway. We also reviewed how states prioritized funding for grassland birds SGCN over the period 2019-2025.

Grassland bird conservation efforts in the Pacific Flyway, 2021-2025

Grassland bird conservation efforts across the Pacific Flyway states are quite variable, with some states conducting limited targeted work. Initiatives include monitoring, habitat restoration, Breeding Bird Survey (BBS) surveys, grassland conservation in northern Mexico (Southern Wings projects), and species-specific work in individual states.

The Western *Asio flammeus* (i.e., Short-eared Owl) Landscape Study (WAFLS) was completed during the reporting period. WAFLS was a community-science based project built to gather information to evaluate the population status of the Short-eared Owl in the western United States funded through a competitive State Wildlife Grant. This project was a Flyway effort covering eight states in collaboration with the Intermountain Bird Observatory and other partners to assess population status, trends, and threats against this species.

Most states conduct coordinated surveys of one or more target species from Table 1, sometimes with volunteers, to monitor in-state populations. In Alaska, the focus is on long-term banding and data analysis for Lincoln's Sparrow and American Pipit, complemented by staff participation in BBS surveys for multiple SGCN. Montana and Arizona implemented Integrated Monitoring in Bird Conservation Regions (IMBCR)-based monitoring in key grassland areas, invested heavily in restoration, and integrated Motus tracking and conservation planning into broader regional strategies. Colorado supports multiple research and monitoring projects, including research investigating solar facility impacts on grassland birds, surveys for grassland-associated raptors as well as widespread IMBCR and BBS surveys in grasslands. Other states like Nevada, Utah, Oregon, Idaho, and Washington conduct limited but targeted efforts, mostly via BBS and

IMBCR data, with some localized surveys and habitat management. Species-focused research and monitoring efforts on listed grassland birds, including Oregon Vesper Sparrow and Streaked Horned Lark, occurred during the reporting period. Most states have invested in compiling data for upcoming SWAP revisions, with some changes in species lists that may need to be considered for next steps.

Conversations are ongoing about how to best target species in Table 1 and identify conservation opportunities and actions that could be coordinated through the NTC in future years.

Table 1. Crosswalk of grassland Species of Greatest Conservation Need (SGCN) by state

Grassland Species	SGCN (# of States)
Burrowing Owl	10
Ferruginous Hawk	9
Short-eared Owl	8
Sagebrush Sparrow	8
Loggerhead Shrike	8
Grasshopper Sparrow	7
Swainson's Hawk	6
Brewer's Sparrow	6
Savannah Sparrow	6
Long-billed Curlew	6
Bobolink	5
Upland Sandpiper	5
Prairie Falcon	3
Vesper Sparrow	3
Northern Harrier	3
American Pipit	3
Baird's Sparrow	3
Horned Lark	3
Lincoln's Sparrow	3

Adoption

Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Emily VanWyk



Russell Norvell, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Informational Note 6 — NTC Priority Initiative 4: Aerial Insectivore Decline (2021-2025)

The Nongame Technical Committee (NTC) identified aerial insectivore conservation as one of four Priority Initiatives (please refer to the NTC Partners Meeting for background). Below, we review accomplishments NTC Priority Initiative 4, which focused on steep-declining aerial insectivores (2021-2025). Table 1 provides a list of target species, following a crosswalk of Species of Greatest Conservation Need (SGCN) of member states and the USFWS Birds of Conservation Concern list.

We successfully secured a Competitive State Wildlife Grant (C-SWG) award of \$500,000 and conducted the first range-wide survey and dynamic occupancy assessment in 2022 for the western Distinct Population Segment of the Yellow-billed Cuckoo, a species listed as Threatened under the ESA. Results identified broad-scale drivers of occupancy and movement, provided a critical benchmark for long-term monitoring, and offered spatial guidance for future conservation efforts. Another successful C-SWG grant provided \$50,000 for Purple Martin tagging to assess migratory connectivity. The funding was part of a larger grant, outside the context of the Flyway, that addresses multiple taxonomic groups (birds, bats, and insects). However, NTC's Priority Initiative on aerial insectivores influenced the inclusion of a Purple Martin component.

Alaska and California recently collaborated to reveal that migratory stopovers of AK Olive-sided Flycatchers overlap spatially with high-occupancy breeding habitats in CA, potentially providing a “two-for-one” opportunity for conservation actions to benefit multiple phases of the life cycle (migratory and local breeding populations). This pattern may be applicable to other species.

Individual states varied in the amount of funds spent on aerial insectivores. At the high end, Alaska and Colorado spent approximately \$165K-\$100K annually on Olive-sided Flycatchers and Black Swifts, respectively, to understand migration routes and stopover locations. Given high levels of concern for aerial insectivores, species in Table 1 were frequently the focus of efforts described in NTC's Priority Initiative 1, Landbird migratory Pathways. Common Nighthawks currently receive the most in-state survey attention (Table 1).

Outside the breeding range, Arizona invested in Central America surveys (\$5,000) to detect non-breeding Willow Flycatchers. Alaska created genoscapes (\$64,000) to map wintering areas of Bank Swallows and American Kestrels for potential conservation efforts in the future.

An emerging conservation concern for aerial insectivores is adult mortality during non-breeding, which is thought to be a driver of declines in multiple species. Future conservation actions could leverage the complementary strengths of the Flyway and its partners to address this issue. For example, partners could support habitat restoration at recently delineated migratory stopovers and wintering areas, while monitoring whether non-breeding survival improves. Conversations are ongoing to identify conservation opportunities and actions that could be coordinated through the NTC and its partners.

Table 1. Aerial insectivore species identified during the NTC’s crosswalk exercise for Priority Initiative 4. Those considered SGCN in three or more states are listed in alphabetical order, below, along with states engaged in research, monitoring efforts, and partnerships (2021-2025).

SPECIES	SGCN (# of states)	States engaged in research, monitoring or partnerships
American Kestrel	3	AK, AZ, ID, NV, UT
Bank Swallow	3	AK, CA, NV
Black Swift*	7	CO, ID
Brown-crested Flycatcher	3	
Common Nighthawk	5	AZ, CO, ID, MT, NV
Flammulated Owl*	9	ID, NV, UT
Lewis’ Woodpecker*	9	OR, NV
Olive-sided Flycatcher*	8	AK, CA, OR, NV, UT
Purple Martin	7	AZ, CA, OR
Vermilion Flycatcher	3	
Willow Flycatcher* (parent species)	7	AZ, NV, UT
Yellow-billed Cuckoo	9	AZ, CA, CO, ID, NV, UT, WA

*Species occurs on the 2021 USFWS Birds of Conservation Concern list.

Adoption

Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Julie Hagelin



Russell Norvell, Chair

PACIFIC FLYWAY COUNCIL

Alaska • Arizona • California • Colorado • Idaho • Montana
Nevada • New Mexico • Oregon • Utah • Washington • Wyoming



Informational Note 7 — NTC Coordination with USFWS 2026 Nongame Bird Status and Conservation Report

The Fish and Wildlife Conservation Act (FWCA, 1980, 16 U.S.C. Sec. 2912) requires the FWS to report to Congress every five years on activities, conducted in coordination with other federal, state, international, and private organizations, that assess population trends, drivers of decline, species likely to become listed under the ESA, and locations likely to foster protection, management, and conservation of nongame birds.

The Service last completed a FWCA report in 2021. A new report will be published in 2026. Past reports have focused solely on the list of Birds of Conservation Concern. The 2026 report will meet the full FWCA mandate by expanding to include a high-level review of all five activities mandated by the FWCA: monitoring, threats, conservation actions, and important lands and waters. It will still feature an updated list of Birds of Conservation Concern.

Between now and January 2026, the Service will request coordination with, and feedback from, each Flyway NTC on monitoring efforts, known threats, important lands and waters, and conservation actions related to nongame migratory birds, in order to inform report development.

Adoption

Pacific Flyway Nongame Technical Committee
September 10, 2025

Contact: Michelle McDowell

Russell Norvell, Chair

SUBCOMMITTEE REPORTS

Taverner's Cackling Goose and Lesser Canada Goose Subcommittee

Kyle Spragens, Washington Department of Fish and Wildlife

Population Status

The population index for Taverner's cackling geese is the sum of indices from three annual aerial breeding population surveys: the Arctic Coastal Plain (ACP) Survey, the Yukon-Kuskokwim Delta Coastal Zone Survey (YKDCZS), and Strata 9 (YKD Inland), 10 (Seward Peninsula), and 11 (Kotzebue Sound) from the Alaska Waterfowl Breeding Population and Habitat Survey (WBPHS).

In 2025, the indicated total bird index was 33,616 (SE = 5,031, 95% CI = 23,754 – 43,477). The 2025 estimate is 24% below the long-term average of 44,083 geese. No population goal has been established for this population.

The population index for lesser Canada geese is the sum of stratum-specific indices from the WBPHS; Strata 1 (Kenai-Susitna), 2 (Nelchina), 3 (Tanana-Kuskokwim), 4 (Yukon Flats), and 12 (Old Crow Flats). An undetermined but small proportion of Canada and cackling geese on the ACP are also believed to be lesser Canada geese, but they are not included in the population index.

In 2025 the indicated total bird index was 10,925 (SE = 4,187, 95% CI = 2,719 – 19,130). The 2025 estimate is 48% above the long-term average of 7,404 geese. No population goal has been established for this population.

Harvest Information

For 2024-2025, Washington reported a statewide harvest estimate of 15,186 from the Harvest Information Program; most harvest was comprised of Taverner's cackling geese, but a small proportion (approximately 1,274) were minima cackling geese. A large proportion of this total harvest comes from the Columbia Basin. Currently, there is no reliable methodology to differentiate lesser Canada goose harvest from the total Canada goose harvest in Washington. Oregon reported an estimated combined harvest of 1,566 lesser Canada geese and Taverner's cackling geese from the Northwest Permit Zone email survey (self-classified and reported by hunters) during the 2024-2025 season. This represents 8% of the total self-classified harvest.

Management Activity

None reported.

Research Activity

Multiple marking efforts targeting geese that are associated with Taverner's cackling geese and Lesser Canada geese are occurring in the Pacific and Central flyways. The subcommittee suggested a more in-depth sharing of updates from these different project partners would be warranted for the upcoming winter meeting in order to assess next steps in crafting a harvest strategy and Management Plan for these geese.

Alaska reported continuing captures of lesser Canada and Taverner's cackling geese in 2024 and 2025 in collaboration with other partners including U.S. Fish and Wildlife Service

(USFWS), Washington Department of Fish and Wildlife (WDFW), Oregon Department of Fish and Wildlife (ODFW), and Ducks Unlimited as part of research aimed at better understanding the seasonal distributions of these two species. Captured geese were marked with USGS metal leg bands and a sample of birds also received GPS-GSM collars. From September 2024 through Aug 2025, 676 geese were captured and banded in Alaska at locations including Anchorage, Palmer, Minto Flats, and Kivalina. Biologists also captured and banded 24 geese in Washington and Oregon. During this period, 33 geese were marked with GPS-GSM collars for a total of 218 collared geese over the course of the project. Additional marking in Alaska is planned for 2026.

Recommendations

The subcommittee adopted two recommendations:

- The subcommittee recommends no change in the Alaska Season framework, and
- The subcommittee recommends no change to the goose season frameworks for Canada and cackling geese in the Pacific Flyway.

Western Canada Goose Subcommittee

Claire Gower, Montana Fish, Wildlife, and Parks

Population Status

The population index for the Pacific Flyway population of western Canada geese is the sum of the total indicated Canada geese from surveys in northeast California, eastern Oregon, eastern Washington, and central British Columbia (BC) surveys, in addition to the estimated total Canada geese from the Waterfowl Breeding Population and Habitat Survey in strata 76 and portions of strata 26–29, 41, and 42.

In 2025, the population index was 425,350, up 33% from 2024 (320,270). The 3-year average was 320,270, well above the minimum population objective of 200,000 birds. The WBHPS counted 276,178 geese. Spring abundance surveys counted 28,887 in BC, 62,034 geese in California, 29,505 in eastern Oregon, and 28,746 in Washington.

Harvest Information

Canada goose harvest estimates for the 2024-2025 season from the Harvest Information Program (HIP) were: Alaska 621, Arizona 1,190; California 41,554; Colorado* 7,441; Idaho 31,807; Montana * 24,235; Nevada 4,384; Oregon 9,036; Utah 26,184; Washington 21,788; and Wyoming *4,648. Harvest estimates preceded by an asterisk were derived from HIP point counts in the Pacific Flyway portions of these states. Overall, the 2024-2025 harvest estimate for Pacific Flyway Population of Canada geese was 172,878 (down from 209,570 in 2023-2024). While the majority of these are western Canada geese, it should be noted that this estimate is for all Canada geese.

Oregon noted that their harvest (9,036) was the lowest harvest of Canada and cackling geese on record. Idaho is concerned the transition to the HIP online registration platform could have had some influence on the accuracy of the HIP estimates, and there appears to be some apparent misalignment between the estimated and actual harvest.

Management Activity

The following management activities were reported for 2025:

In northeastern California, 2,059 Canada geese were banded. In Idaho, 809 Canada geese were banded, statewide. In Utah 3,217 Canada geese were banded mostly in the Wasatch front and a few in central UT. In eastern Washington, 506 Canada geese were banded. In Oregon, 108 Canada geese were banded in the Klamath Basin and 73 in other parts of the state.

In Idaho, several management actions were conducted for nuisance Canada geese, mostly on golf courses or around urban areas; 186 geese were captured and euthanized at four locations in eastern Idaho, and eight birds at two locations in southwest Idaho. Washington reported they are seeing more nuisance Canada goose issues being reported in the western part of the state. USDA is responsible for nuisance actions.

Arizona Game & Fish Department banded 46 Canada geese in February 2025 with Federal leg bands. In June 2025, they trapped Canada geese with kayaks and walk-in corrals while they were molting and flightless at five waters in administrative Region 1 (White Mountains in eastern AZ). The Department banded 363 Canada geese with Federal leg bands; of those, 301 after-hatch-year

birds also received a numbered neck collar. Data from band recovery and observation will help inform the Department on whether there are now many ‘resident’ Canada geese in Arizona, where they are moving and migrating to, and how many are available for harvest and are harvested

There have been no significant Highly Pathogenic Avian Influenza (HPAI) events this fall.

No states are proposing any goose zone changes for the 2026-2027 season.

Research Activity

No research activities are ongoing, or proposed, in the Pacific Flyway states for western Canada geese.

Recommendations

The subcommittee adopted two recommendations:

- The subcommittee recommended no changes to the framework to Canada and cackling goose seasons.
- The subcommittee recommended no changes to the framework for special early Canada and cackling goose seasons.

White Goose Subcommittee

Dr. Larisa Harding, Arizona Game and Fish Department

Population Status

The Pacific Flyway winter white goose survey was conducted in December 2024. The most recent index of overall abundance was 1,484,730 (in 2024) for the areas surveyed in Washington, Oregon, and California. The current 3-year average across all survey areas is incomplete, but the 3-year average in California is 1,039,112 white geese, down 5.5% from the previous 3-year average, while numbers in Washington are inconclusive.

Harvest Information

The 2024 Pacific Flyway snow goose harvest estimate from the Harvest Information Program (HIP) was 116,983 (3-year average = 101,250). The 2024 harvest estimate for Ross's goose from HIP was 25,251 (3-year average = 26,745). Concerns about classification of Snow and Ross's geese for HIP estimates suggest HIP estimates may not be accurate, particularly for harvest occurring during February and March in Washington and Oregon.

Idaho also conducts an independent harvest survey every three years, with the last survey in 2024 suggesting more than 40,000 white geese were harvested. This total is greater than amounts reported for Idaho (e.g. ~1,100–3,900 from 2020–2024) in HIP, again raising concerns about classification of white goose species in HIP wing surveys.

California public area harvest reported 1,228 snow geese and 36 Ross's geese collectively from 35 areas.

Oregon noted that harvest this past year was low in areas where historically higher harvest occurred; for example, Sauvie Island Wildlife Area (WA) recorded harvest of 32 snow geese at the check station, and the Northwest Permit Zone (which includes Sauvie Island WA) estimated harvest at 293 birds. As well, Summar Lake WA check out cards recorded 281 snow and 4 Ross's geese. Contrastingly, reports of large numbers of migrant snow geese in the fall across Oregon included areas where the birds typically do not stop or stage. For instance, 2,000 geese were present at Ladd March WA in early December and "thousands" were reported in the Treasure Valley region around the same time.

Management Activity

Ongoing efforts at the ABR Inc. and the North Slope Borough to refine their AI processes for interpreting aerial images of nesting and brood-rearing geese. They plan to resume field surveys in the near future, with a new suite of image processing tools at their disposal. These groups are also working with Dr. Benjamin Jones at University of Alaska Fairbanks to investigate changes in snow goose nest distribution on the Ikpikpuk River delta relative to site conditions, such as vegetation, flooding, snow melt, and topography.

Josh Dooley and Mitch Weegman (USFWS and University of Saskatchewan) continue to develop an integrated population model for Pacific Flyway light geese (Wrangel Island and Western Arctic lesser snow geese). Analysis shows recent expansion of snow geese in AK is part of 50-yr growth in western Arctic associated with high rates of nest success during increasingly warm spring conditions.

Banding at Banks Island did not occur in 2025. Eric Reed (Canadian Wildlife Service) reported issues with helicopter equipment as the largest obstacle to banding efforts. Eric also noted that productivity in the Western Arctic Population of snow geese was above average, at least in the limited area of Banks Island, but he cautioned that may not be representative of conditions across all nesting areas.

Washington noted that the Skagit snow goose survey did occur in 2025, but final counts will not be available until after the September 2025 meeting. Surveyors are using AI to count birds captured via aerial photography.

Idaho recently experienced two significant mortality events on snow geese. In November and December 2024, roughly 5,000 snow geese died with confirmed HPAI (Highly Pathogenic Avian Influenza). A second mortality event came in April 2025 when 600-700 snow geese died, with suspected HPAI or cholera outbreaks. Other states did not observe significant die-offs due to disease.

The Alaska Science Center banded snow geese in the Colville River Delta in 2025, but anticipated fieldwork to assess effects of snow goose abundance on vegetation and on other nesting birds was canceled due to a diversion of funding.

Research Activity

Washington Department of Fish and Wildlife (WDFW) assisted in deployments of GSM neck collars during spring 2024 in the Stillaguamish Delta in the historical winter range of the Wrangel Island population. WDFW intends to deploy ~30 GSM transmitters on snow geese in the Skagit area in February 2026. Updates will be shared with the subcommittee at future meetings.

The following publications may be relevant to white geese:

- Frost, C. J., D. E. Safine, J. B. Fischer, and E. E. Osnas. 2025. Alaska Goose, Swan, and Crane Population Indices. U.S. Department of Interior, Fish and Wildlife Service, Alaska Region, Migratory Bird Management, Anchorage. <https://doi.org/10.7944/mxfs-0y52>
- Piironen et al. 2025. Environmental drivers of productivity explain population patterns of an Arctic-nesting bird across a half-century. <https://doi.org/10.1002/eap.70067>

Recommendations

The subcommittee adopted two recommendation(s):

- The subcommittee recommends no change to the regular goose season frameworks for white geese.
- The subcommittee recommends no change to the Alaska season frameworks for white geese.

Aleutian Subcommittee

Melanie Weaver, California Department of Fish and Game

Population Status

Based on indirect estimates from mark-resight data, the 2025 population estimate was 204,576 geese, and the most recent 3-year average (management index) is 183,957 geese.

Harvest Info

Currently, Aleutian cackling goose tail fans submitted through the Harvest Information Program's parts collection survey cannot be differentiated from other cackling goose tail fans. Therefore, an Aleutian cackling goose specific harvest estimate cannot be calculated from the parts collection survey. The California Department of Fish and Wildlife (CDFW) reported a harvest of 194 Aleutian cackling geese on public hunt areas in 2024-2025. Oregon Department of Fish and Wildlife reported a harvest of 204 Aleutian geese in the Northwest Oregon Permit Zone estimated from hunter self-classification email surveys for the 2024-25 hunting season. Washington Department of Fish and Wildlife reported zero Aleutian geese were detected in the harvest in 2024-2025

Management Activity

CDFW reported that 142 geese were marked in California during November and December 2024. CDFW intends to continue trapping attempts during late October to December 2025 in the Delta, with a goal of deploying 400 collars. Resight efforts are anticipated to continue during January-March 2026 in California and Oregon. Discussion is ongoing about potential marking activities in the Humboldt County area however, the season is open and likely only able to use public lands which goose use is limited. Further trapping in alfalfa or winter wheat is very difficult given how geese use pasture in addition to muddy conditions.

Research Activity

None reported

Recommendation

The subcommittee adopted two recommendations:

- The subcommittee recommends no change to the Alaska season framework for Canada and cackling geese.
- The subcommittee recommends no change to the Pacific Flyway regular Canada and cackling goose season frameworks.

Minima Cackling Goose Subcommittee

Kyle Spragens, Washington Department of Fish and Wildlife

Population Status

The management index for the minima cackling goose population is the 3-year average projected fall population size which is calculated by multiplying the indicated total bird index from the Yukon-Kuskokwim Delta Coastal Zone Survey (YKDCZS) by an index ratio of 3.42. The index ratio is estimated as the ratio between the indicated total bird index from the YKDCZS and population estimates derived from mark-resight data collected in 1989–2003 and 2011–2013.

The 2025 minima cackling goose projected fall population is 124,369 (95% CI: 108,107 – 140,631). The management index (three-year average) is 134,113 geese, 46% below the population objective of 250,000.

Per the Pacific Flyway Council management plan, when the population index is more than 10% below (225,000) the objective, regulatory actions should be implemented to regain the objective (Pacific Flyway Council 2016). Bag limits were reduced in portions of Oregon, Washington, and Alaska in 2022-2023 hunting season. Additional restrictions will be implemented during the 2025-2026 hunting season including reduced bag limit, season length, season timing, and total allowable days in the primary areas where this subspecies is harvested, including in portions of Oregon, Washington, and Alaska. Based on the implementation of these restriction, no further reductions in harvest regulations are warranted.

Harvest Information

There is no reliable method to differentiate the various subspecies of cackling geese from the U.S. Fish and Wildlife Service's (USFWS) parts collection survey, and therefore, there is no way to generate an estimate of total minima cackling goose harvest in the Pacific Flyway. However, various state surveys/check stations provide some information about harvest. Oregon Department of Fish and Wildlife (ODFW) reported an estimated harvest of 11,828 minima cackling geese or 60% of the total goose harvest in the Northwest Oregon Permit Zone in 2024-2025 based on hunter self-classification of geese. Harvest under a bag limit of 4 prior to restrictions resulted in ~21,000-22,000 birds estimated to be harvested annually. Washington Department of Fish and Wildlife (WDFW) reported an estimated harvest of 1,274 minima cackling geese from Southwest WA, based on preliminary analysis of mandatory harvest report cards. California Department of Fish and Wildlife reported harvest of <200 minima cackling geese on state-operated public hunting areas. The Alaska Migratory Bird Co-Management Council Harvest Assessment Program has no updated harvest data since 2019. There is no minima cackling goose specific estimate for fall-winter harvest in Alaska.

Management Activity

In 2025, the USFWS Yukon Delta National Wildlife Refuge banded 1,168 cackling geese, with 31 recaptures from previous years, during a combination of ground (9 drives, 629 geese) and helicopter drives (24 drives, 539 geese) in July. This banding effort is funded through the Arctic Goose Joint Venture operational banding project through 2026.

ODFW and WDFW reported a noticeable number of mortality reports in the early portion of the fall in the Willamette Valley and Lower Columbia River, likely due to Highly Pathogenic Avian Influenza, but reports tapered off quickly.

Research Activity

None reported.

Recommendations

The subcommittee adopted two recommendations:

- The subcommittee recommends no change to the Alaska season frameworks for Canada and cackling geese.
- The subcommittee recommends no change to the goose season frameworks for Canada and cackling geese in the Pacific Flyway.

Dusky Canada Goose Subcommittee

Kyle Spragens, Washington Department of Fish and Wildlife

Population Status

The 2025 total breeding ground index was 11,797. The most recent 3-year (2023-2025) average population management index of 9,855 was 51% below the population objective of 20,000 birds, but above the 7,500-bird threshold for restrictive regulations per the Pacific Flyway Council management plan (2015).

Harvest Information

Washington Department of Fish and Wildlife (WDFW) reported one confirmed dusky Canada goose harvested last season. Oregon Department of Fish and Wildlife (ODFW) reported zero dusky geese harvested in the postseason email survey. However, because harvest of dusky geese in this zone is unlawful, estimates are assumed to be unreliable. Dusky Canada geese cannot be separated from other populations of Canada geese in the Parts Collection Survey, thus the Harvest Information Program does not provide an estimate of dusky harvest in Alaska.

Management Activity

Alaska Department of Fish and Game (ADFG) reported a crew of six (five staff and one volunteer) arrived at Middleton Island on 12 May and began nest surveys that evening. Surveys were conducted daily through 16 May, except for 15 May due to inclement weather. All 80 transects were completed. One hundred fifty-nine goose nests were detected during transect surveys with an average perpendicular distance of 6.25 m and a maximum distance of 38.3 m. Average clutch size was 4.7 eggs. The 80 transects surveyed in 2025 were adequate to provide relatively precise nest density/abundance estimates (coefficient of variation = 10.5).

Considering the degree of precision, the number of transects could likely be reduced, but given the time and expense associated with traveling to/from Middleton Island and the fact that surveys are conducted on a biennial basis, it may be desirable to maintain the number of transects at 80.

The U.S. Forest Service (USFS) distributed a report on nest islands use and success. A total of 373 artificial nest islands were monitored in June/July 2025. A total of 330 nest islands were available for use by dusky Canada geese. Dusky Canada goose nests were found on 74 nest islands, and 44 (66%) were successful. Maintenance (i.e., landscaping, anchoring, or both) was needed on 135 islands, but due to limited staffing only 61 islands were maintained in 2025 with prioritization based on past use and islands with the greatest maintenance needs.

In 2024, the USFS installed 4 dusky tunnels. The USFS is testing these tunnels to determine if geese will use this design. As of 2025, no nesting evidence has been found. USFS is planning on expanding this prototype to 20 additional tunnels in 2026 prior to the nesting season. If used, this model would greatly decrease maintenance time and costs, while providing protected nesting for geese. A final dusky program report will be completed in October.

ADFG and USFS conducted banding drives on the Copper River Delta, capturing a total of 676 dusky Canada geese, of which 624 received neck collars for resight efforts in the wintering areas. Three main capture areas were targeted, including captures on Egg Island.

ADFG conducted a production survey in July on the Copper River Delta (CRD), and photo corrected counts indicated 5,782 adults and 885 goslings were observed. This year's gosling count was relatively average and followed two consecutive years of high productivity.

The U.S. Fish and Wildlife Service analyzed available (1996–2025) data from the cooperative state-federal mark-resight survey in the Pacific Flyway for dusky Canada geese (*Branta canadensis occidentalis*) to estimate apparent annual survival probabilities and number of geese with a neckband. The best fitting model indicated annual survival probabilities for marked geese varied among 3 periods: 1997–2000 was 0.651 (SE = 0.013, 95% CI = 0.624–0.676), 2001–2017 was 0.843 (SE = 0.006, 95% CI = 0.830–0.855), and 2018–2024 was 0.797 (SE = 0.027, 95% CI = 0.740–0.844). The estimated number of marked birds in the population during October 2024 was 553 (SE = 18.6, 95% CI = 523–596).

During the 2023–2025 seasons, a group of experienced observers in Oregon made a concerted effort to estimate the ratio of marked to total birds so that total abundance of dusky geese could be estimated. The average number of geese examined for the presence of a neckband each year was 15,984 and the average number of marked geese per flock was 1.1. The ratio of total to marked geese averaged 24.5 geese. For the 2025 season, the estimated ratio was 29.2 (SE = 2.41, 95% CI = 24.5–33.9). Based on the ratio of total to marked geese and the estimated number of marked geese in the population, total abundance of dusky Canada geese in October 2024 was 16,162 (SE = 1,440, 95% CI = 13,339–18,985). The average population size during the 2023–2025 seasons was 16,551 birds (SE = 2,936.8, 95% CI = 10,795–22,307).

The subcommittee will review the survey components used in the spring index for dusky Canada geese during the spring work meeting.

Research Activity

None reported.

Recommendations

The subcommittee adopted two recommendations:

- The subcommittee recommends no change in the frameworks directed at dusky Canada geese in the Alaska Season Framework, and
- The subcommittee recommends no change in the frameworks directed at dusky Canada geese in the Pacific Flyway.

White-fronted Goose Subcommittee

Brandon Reishus, Oregon Department of Fish and Wildlife

Population Status

Pacific Population – The estimated fall population size for fall 2025 is 468,864 (SE 55,765; 95%CI 359,163 to 578,163) geese and the 3-year average (management index) is 436,671 (SE 45,732; 95%CI 347,036 to 526,306). The management index is 46% above the population goal of 300,000 but counts in recent years suggest the population has declined after peaking at over 700,000 about a decade ago.

Tule Population – The estimated winter population size for 2024-25 was 6,721 (SE 1,934; 95%CI 2,931 to 10,511) and the 3-year average (management index) is 9,802 (SE 4,061; 95%CI 1,842 to 17,762). The management index is 2% below the population goal of 10,000.

Midcontinent Population – The estimated Lincoln estimate of adult geese in the summer for 2023 was 2,749,577 (SE 342,915; 95%CI 2,077,464 to 3,421,689) The most recent 3-year average was 2,407,537 (SE 216,014; 95%CI 1,984,149 to 2,830,925), with 0% of the estimate distribution below the 1.2 million bird threshold identified in the Management Plan.

Harvest Information

Estimated white-fronted goose harvest in the Pacific Flyway, including Alaska, was 95,667 last season. The Harvest Information Program does not differentiate between tule and Pacific white-fronted geese in the harvest; however, monitoring at Summer Lake Wildlife Area, Oregon and public areas in California (Colusa, Delevan, Sacramento NWRs & Grizzly Island Wildlife Area) suggest 22 tules were harvested at Summer Lake and that tule geese comprised 3% of harvest at California public areas last year.

Estimated harvest of white-fronted geese in the U.S states of the Central and Mississippi flyways (midcontinent population) was 219,513 last season.

Management Activity

The subcommittee is working towards a revision of the Council management plan for Pacific population white-fronted geese and should be available for Council consideration before March 2026.

California and Oregon plan to continue captures of tule geese in fall 2025 at Summer Lake Wildlife Area and instrument them with VHF radio transmitters. The project report for 2024 is attached.

Logistical issues prevented the U.S. Fish and Wildlife Service Migratory Bird Management Program (Alaska Region) from banding midcontinent white-fronted geese at the Innoko National Wildlife Refuge in 2025 and the USGS Alaska Science Center from banding on the Arctic Coastal Plain in 2025.

Research Activity

None reported.

Recommendations

The subcommittee adopted three recommendation(s):

- The subcommittee recommends the management plan’s harvest strategy be replaced with a revised strategy (below), and that it be used to guide harvest management decisions beginning with the 2026-27 frameworks.
- The subcommittee recommends no change to the Alaska Season Framework for white-fronted geese, except to decrease the daily bag limit in Unit 18 from 10 to 6.
- The subcommittee recommends no change to the Pacific Flyway season framework for white-fronted geese, except to decrease the daily bag limit from 10 to 6.

REVISED HARVEST STRATEGY FOR PACIFIC GREATER WHITE-FRONTED GEESE

The harvest strategy is intended to provide hunting opportunities commensurate with population status and to conserve Pacific whitefronts in perpetuity. In recognition that this population is a shared resource throughout the flyway, the following harvest guidelines apply:

1. Harvest management should maintain a minimum population of 300,000 as assessed by the 3-year average projected fall index.
2. If the 3-year average exceeds 450,000 further liberalizations should be considered.
3. To reopen after closure, the 3-year average must exceed 120,000.
4. When in Moderate and Restrictive regulation package, AZ, CO, ID, MT, NM, NV, UT and WY have the option to include white-fronted geese in an aggregate bag limit in accordance with their established regular season framework for Canada and cackling geese and brant (dark geese). Seasons must end no later than January 31 if this option is selected.
5. Implementation of this strategy will include consideration of effects on the Pacific Flyway population of Tule greater white-fronted geese.

Regulation Package	3-year average
Closed	<100,000
Restrictive	100,000-<200,000
Moderate	200,000-<300,000
Liberal	≥300,000

Regulation Package	Restrictive	Moderate	Liberal	Framework Start Date
Days and Bag	37 days 2 daily bag	79 days 4 daily bag	107 days 6 daily bag	Saturday closest to September 24 Except Alaska is September 1
Ending Date	January 31	January 31	March 10	
Segments	1	2	3	

**Project Update
Tule Greater White-fronted Geese
August 2025**

Caroline Brady and Melanie Weaver



Capture and marking

In September 2024, 13 Tule geese were captured; 4 were marked with VHF radio collars and 1 was marked with a GSM transmitter collar at Summer Lake Wildlife Management Area (WMA), Oregon.

Telemetry

The initial search list included 34 collars from previous years including cohorts from: 2021 = 2, 2022 = 16, and 2023 = 16. Searches for radio-collared birds were conducted from the fall through spring via ground and aerial telemetry in the Summer Lake Basin, Klamath Basin, Sacramento Valley, and the Suisun Marsh. In total, 29 individuals were detected at least once between October 2024 and February 2025; of those, one was an old radio (i.e., marked pre-2020). A total of 224 telemetry detections were made over this period; the single bird marked in 2019 comprised less than 1% of detections (one visual observation was made), 2021 was 2%, 2022 was 38%, 2023 was 40%, and those marked in 2024 made up 20% of total detections.

Year Marked	Total Marked (Sept only)	Available for Winter	Available for AK (survived hunt season)	Detected AK	Detected Fall #2
2003	48	47	38	33	34
2004	26	23	17	14	12
2005	25	25	25	23	23
2006	51	44	39	31	33
2007	32	32	26	17	21
2008	24	24	20	13	9
2009	30	30	26	24	18
2010	32	31	30	25	22
2011	17	16	14	14	13
2012	21	21	20	15	11
2013	26	26	17	14	12
2014	30	30	23	17	20
2015	25	23	21	21	17
2016	22	22	20	16	18
2017	18	18	16	9	11

Year Marked	Total Marked (Sept only)	Available for Winter	Available for AK (survived hunt season)	Detected AK	Detected Fall #2
2018	20	18	15	11	8
2019	34	30	30	23	21
2020	NA	NA	NA	NA	NA
2021	13	12	11	9	11
2022	21	21	20	11	17
2023	24	23	14	12	11
2024	4	4	4	2	NA

Winter distribution

From October 2024 to February 2025, there was a total of 224 telemetry detections made throughout the Sacramento Valley, Suisun Marsh, and Summer Lake Wildlife Area in Oregon. Telemetry also occurred at the Warner Lakes and the Chewaucan Marsh in Oregon however; no detections were made. Radio-marked geese used traditional areas in the Sacramento Valley (Sacramento Complex NWRs) including rice fields and private duck clubs adjacent to Sacramento, Delevan, and Colusa NWRs as well as the Suisun Marsh. There was a total of 136 telemetry detections made in California; 47% of which were at Colusa NWR, 41% were at Delevan NWR, 4% at Sacramento NWR, 1% at Grizzly Island Wildlife Area, 2% in the West Sacramento Valley but off refuge, and 5% in the Lurline Sink. Telemetry searches in the Summer Lake Basin and Warner Valley occurred from October to February; geese were only detected at Summer Lake Wildlife Area (n = 84 detections; n = 24 individuals)

Migration timing and departure of geese

Fall — The earliest detection of radio-marked geese at Summer Lake occurred on 9 October 2024, most previously marked birds (n = 18) arrived between 9 and 17 October 2024. In the Sacramento Valley the first radio-marked birds (n = 6) were detected on 23 October 2024 on Colusa and Delevan NWRs. By 4 November, an additional 17 marked birds were in the Sacramento Valley; one marked in 2019, one in 2021, 8 marked in 2022, 9 in 2023, and 4 in 2024. Although two birds marked in previous years seemingly never left Summer Lake (only detected in Summer Lake throughout the tracking duration), most birds arrived in the Sacramento Valley between 17 October and 4 November 2024.

Spring — The earliest detected arrival to Summer Lake (n = 1) occurred on 5 January 2025, which increased to 15 individuals by 24 February 2025.

Radio-marked detections after hunt season (10 March) and Alaska.

Considering detections made through 30 March and radio life, 22 radios were considered available in Alaska for summer 2025 telemetry by Alaska Department of Fish and Game and U.S. Fish and Wildlife Service. On the 27-28 May and 22-23 August 2025, the Alaska Department of Fish and Game conducted four aerial telemetry flights in the Susitna Valley, 20 birds were detected (2022 = 8, 2023 = 10, 2024 = 2). The U.S. Fish and Wildlife Service did not conduct telemetry flights at Yukon Delta NWR because

of equipment failure.

Known mortalities

Five recoveries were reported as shot between 1 July 2024 and 1 July 2025.

Location	Youth Hunt	Hunting Season Mortalities	Other Mortality	Total Mortalities
Alaska	0	0	0	0
Summer Lake, OR	0	1	0	1
Northeastern, CA	0	0	0	0
Sacramento Valley, CA	0	3	0	3
Suisun Marsh, CA	0	1	0	1

2024-25 Check Station Harvest Assessment

Since 1999 CDFW check station staff have used bill measurements of greater white fronted geese to determine subspecies on Sacramento, Delevan, and Colusa NWR’s and Grizzly Island Wildlife Area. During the 2020-21 season, a new process was developed by the Genetics Research Unit of the Wildlife Health Lab to differentiate subspecies. This cost-effective genetic approach uses a panel of 83 single nucleotide polymorphisms (SNPs) optimized to discern between Tule and Pacific GWFG, addressing field staff inaccuracies and expediting the sampling process.

During the 2024-25 waterfowl season, 704 greater white-fronted geese were harvested in above public hunt areas. Of these, genetic samples were obtained for 682 geese (97%) and were successfully amplified and subspecies determined. In total, 19 tule geese were harvested across the four check stations, 3% of the total greater white fronted geese sampled. This is the second lowest percentage of Tule harvested since implementation of the SNP genotyping for subspecies identification (2020-21 = 7% Tule; 2021-22 = 5% Tule; 2022-23 = 29% Tule; 2023-24 = 2% Tule).

Table 1. Summary of subspecies determination across four hunting areas, including the Sacramento, Delevan and Colusa National Wildlife refuges (NWR), and Grizzly Island Wildlife Area (WA)

<i>Location</i>	<i>n</i>	<i>Tule</i>	<i>Tule admixed</i>	<i>Pacific</i>	<i>Pacific admixed</i>	<i>Admixed</i>	<i>Proportion Tule</i>
Sacramento NWR	253	2	2	227	17	5	0.01
Delevan NWR	283	8	0	241	23	11	0.03
Colusa NWR	94	7	0	81	4	2	0.07
Grizzly Island WA	52	2	1	47	2	0	0.04
Total	682	19	3	596	46	18	0.03

Population estimates

Four observers conducted ground surveys during two sampling periods for developing an indirect estimate of population size in mid-November and mid-December 2024. Population estimates are derived using the mean ratio of all flock observations multiplied by the number of marks available in the population. The following estimates are published in the peer reviewed manuscript: *Yparraguirre, D. R., Sanders, T. A., Weaver, M. A., and D. A. Skalos. 2020. Abundance of Tule geese Anser albifrons elgasi in the Pacific Flyway 2003 – 2019. Wildfowl Vol. 70 30 – 56.*

Table 2. Tule white-fronted goose population estimates (N), confidence intervals (L95, U95) and coefficient of variation (CV) from mark-resight study 2003-current.

Season	N	L95	U95	CV
2003	17,536	10,863	24,209	0.19
2004	9,115	3,848	14,381	0.29
2005	15,071	2,968	27,175	0.41
2006	33,342	11,997	54,686	0.33
2007	16,639	9,726	23,552	0.21
2008	11,038	5,818	16,258	0.24
2009	13,425	7,452	19,399	0.23
2010	17,002	7,990	26,015	0.27
2011	11,934	7,497	16,370	0.19
2012	16,265	6,924	25,606	0.29
2013	10,975	4,536	17,414	0.30
2014	8,940	4,287	13,593	0.27
2015	9,667	5,943	13,391	0.20
2016	18,445	8,436	28,453	0.28
2017	17,123	8,994	25,252	0.24
2018	6,992	3,939	10,045	0.22
2019	16,448	6,785	26,111	0.30
2021	11,713	687	22,739	0.48
2022	13,029	736	25,232	0.48
2023	9,655	4,697	14,613	0.26
2024	6,721	2,931	10,511	0.29

Trapping and marking plans for 2025

There are 42 radio collars available for deployment in September 2025 at Summer Lake Wildlife Management Area (WMA), Oregon.

Telemetry and mark:resight surveys

Searches will continue in 2025–26 for radio-collared birds in the Summer Lake Basin (ODFW), Klamath Basin (USFWS), Sacramento Valley (CDFW), and the Suisun Marsh (CDFW). Two sampling periods are planned to obtain ratios of marked to unmarked birds during mid-November and mid-December.

Acknowledgements

The assistance from many individuals from agencies throughout the Flyway is sincerely appreciated.

Alaska

Bryan Daniels (USFWS), Dennis Marks (USFWS), Michael Guttery (ADFG), Jason Schamber (ADFG), Bill Wiederkehr (ADFG)

Oregon

Brandon Reishus (ODFW), Jason Journey (ODFW), Scott Nelson (ODFW), Jared Sisemore (ODFW), Kelly Walton (ODFW)

California

Melanie Weaver (CDFW), Caroline Brady (CDFW), Mike Breiling (CDFW), Jennifer Isola (USFWS), Andrea Mott (CDFW), Gavin Woelfel (CDFW), Mike Breiling (CDFW)

Washington

Steve Olson (USFWS), Todd Sanders (USFWS)

Citations:

Ahrens, K., Buchalski, M., Skalos, D., Weaver, M. 2021. Single nucleotide polymorphisms used for genetic stock identification of Greater White-fronted Geese (*Anser albifrons*) subspecies wintering in California. Tech. Rep. Sacramento, CA: California Department of Fish and Wildlife, Wildlife Genetics Research Unit; pp. 36.

Orthmeyer D. L., Takekawa J. Y., Ely C. R., Wege M. L., & Newton W. E. 1995. Morphological differences in Pacific Coast populations of greater white-fronted geese. *Condor*, 97, 123–132.

Sanders, T.A. & Trost, R.E. 2013. Use of capture recapture models with mark-resight data to estimate Aleutian Cackling Geese. *Journal of Wildlife Management* 77: 1459–1471.

Yparraguirre, D. R., Sanders, T. A., Weaver, M. A., and D. A. Skalos. 2020. Abundance of Tule geese *Anser albifrons elgasi* in the Pacific Flyway 2003 – 2019. *Wildfowl* Vol. 70 30-56.

Pacific Brant Subcommittee

Emily Shakeri-Wells, U.S. Fish and Wildlife Service (Pacific Southwest Region)

Population Status

The management index for the Pacific population of brant is the 3-year average of the number of brant estimated during the fall photographic aerial survey at Izembek Lagoon, Alaska (fall brant survey [FBS]). If the annual FBS is not completed, the most recent 3-year average will be substituted for the missing year. The number of brant estimated during the 2024 FBS was 188,820 (SE 50,101), down from 245,074 (SE 69,703) in 2023. The most recent 3-year average number of brant estimated during the FBS was 211,823 (2022–2024; SE 58,477).

Harvest Information

The 2024 Harvest Information Program estimates were: California 1,267; Oregon 4; Washington 1,071; Alaska 1,978; for a Pacific Flyway total (including Alaska) of 4,320 brant. Alaska Department of Fish and Game staff (ADFG) continued to implement a statewide e-survey of hunters to estimate harvest of brant in Alaska. Available email addresses (~1,450) were obtained for individuals who purchased an Alaska duck stamp and indicated that they planned to hunt brant during the 2024-25 waterfowl hunting season. A survey link, along with text explaining the purpose of the survey were sent to all hunters. The response rate was 22%. Fall-winter harvest was estimated at 3,974 brant (95% BCI = 2,867 – 5,509). Total harvest related mortality (harvest + wounding loss) for brant was estimated at 4,260 birds (95% BCI = 3,102 to 5,830).

Washington reported their state-led harvest monitoring for brant this past season indicated 152 were harvested.

Management Activity

The photographic Winter Brant Survey in Washington is developing image recognition software to automate counts of wintering brant and plans to have this software operational for counts in 2025.

California conducted a mid-winter brant survey in January 2025 and estimates by area were: Humboldt Bay 1,295; Bodega Bay 118; Tomales Bay 381; Pt. Reyes 0; Morro Bay 920; San Diego/Mission Bay 1067. Total estimate was 3,781 brant.

U.S. Fish and Wildlife Service (Service)-Yukon Delta National Wildlife Refuge (YDNWR) staff reported low production for brant on the Yukon-Kuskokwim Delta. The colony photographic survey was conducted in June 2025, and results are pending. Photos are being annotated and used to train a YOLO learning algorithm so photo counts can hopefully be automated in the future.

Dr. David Koons (Colorado State University) reported on the Tutakoke Brant Project's banding operations within the Yukon-Kuskokwim Delta. This banding occurred in July 2025 and was conducted in collaboration with the Service-YDNWR. Fox predation was especially high with nest success <30%, ranking it among the five worst years of production in the 40-yr study. New bands were deployed on 502 brant and 104 individuals were recaptured. During banding and

nest-trapping, 75 adult females were outfitted with geolocators to inform long-term changes in migratory decisions and carryover effects of those decisions on reproduction and survival. A total of 180 goslings were equipped with webtags and 29 were recaptured during banding drives. Additionally, 12 1-yr old prebreeders with webtags were captured that had not been banded in drives in 2024.

Brood captures and banding took place on the Colville River Delta in 2025. The target sample size was 1000 new bands, but only 300 brant were captured and ~50% were non-breeding adults. Snowmelt was unusually late on the north slope, followed by severe ice-jam flooding on the Colville Delta which may have reduced nest success.

US Geological Survey-Alaska Science Center (USGS-ASC) scientists continue to work with the Service to release model-based brant age ratio estimates from Izembek National Wildlife Refuge through 2024. This information is available at <https://doi.org/10.5066/P9QIJIU2> and will be updated annually into the future to provide up-to-date information.

Service-Alaska Region released the FBS update Feb. 5, 2025, with data through 2024.

Frost, C.J., Safine, D. E., Wilson, H., Osnas, E.E., and J.B. Fischer. 2025. Fall Photographic Survey of Pacific Brant at Izembek Lagoon, Alaska: 2024 Survey Update. Report. U.S. Fish and Wildlife Service, Alaska Region, Migratory Bird Management. <https://doi.org/10.7944/f0qw-qm58>.

Research Activity

California Department of Fish and Wildlife's Duck Stamp Project completed its first year and was able to achieve and surpass the initial goal of genotyping Alaskan breeding populations of brant and creating harvest derivations for winter-harvested brant in California. Following additional investments from outside sources, the project expanded to include sampling the majority of black brant wintering populations along the Pacific Flyway. In the first year, 299 samples were collected across 7 sampling sites and DNA analysis is underway. During the 2025-26 season sampling will continue in Alaska, Washington, California, and Mexico.

USGS-ASC and University of Nevada Reno scientists used geolocators to track black brant migration from two breeding populations in Alaska and found that many now overwinter at Izembek National Wildlife Refuge, reducing migration distance by 4,500 km without affecting breeding timing or nest success.

Matsuoka et al. 2025. Shortening migration by 4500 km does not affect nesting phenology or increase nest success for black brant (*Branta bernicla nigricans*) breeding in Arctic and subarctic Alaska. <https://doi.org/10.1186/s40462-025-00530-z>.

USGS-ASC and the Service developed a monitoring strategy for eelgrass beds in Izembek Lagoon by comparing satellite images over time.

Douglas et al. 2025. Mapping eelgrass (*Zostera marina*) cover and biomass at Izembek Lagoon, Alaska, using in-situ field data and sentinel-2 satellite imagery. <https://doi.org/10.3133/ofr20251007>.

USGS-ASC staff conducted analyses to determine sampling effort needed to detect declines in eelgrass biomass in Izembek and Kinzarof Lagoons near Cold Bay, Alaska.

Weiser et al. 2024. Evaluating the effectiveness of long-term monitoring to detect declines in a large subarctic eelgrass meadow. <https://doi.org/10.57257/JAPM-D-24-00024>.

Analysis is ongoing for two USGS-ASC partner-funded projects: 1) An experimental assessment of helicopter disturbance effects on molting brant in the Teshekpuk Lake Special Area, NPR-A, and 2) modeling overwater migration paths of black brant relative to potential offshore wind development areas. Fieldwork is complete for both projects.

Recommendations

The subcommittee adopted one recommendation:

- The subcommittee recommended the 2026–2027 brant season frameworks for Alaska, California, Oregon, and Washington be determined based on the Council’s Pacific Brant Harvest Strategy, pending results of the 2025 Fall Brant Survey (FBS). If results of the 2025 FBS are not available, results of the most recent FBS should be used.

Emperor Goose Subcommittee

Jason Schamber, Alaska Department of Fish and Game

Population Status

The management index for emperor geese is based on the indicated total bird index (index) from the Yukon-Kuskokwim Delta (YKD) Coastal Zone Survey in the year before the regulation year. The 2025 index was 22,180 (95% CI 19,891–24,470) geese, which is consistent with a closed 2026–2027 fall-winter season as specified in the harvest strategy from the Pacific Flyway Council (Council) management plan for emperor geese.

Harvest Information

The 2024–2025 fall-winter hunt was administered by the Alaska Department of Fish and Game (ADFG) using a registration permit system across seven hunt areas with a statewide harvest quota of 500 birds. The hunt was open to both Alaska residents and non-residents. Registration permits were issued to 588 residents and 25 nonresidents. The reported harvest of emperor geese by resident hunters was 178 and by nonresident hunters was 23, for a total reported harvest of 201 geese.

The Alaska Migratory Bird Co-Management Council (AMBCC) Harvest Assessment Program has not been conducted since 2019, so there are no recent estimates of subsistence harvest of emperor geese.

Management Activity

The 2025–2026 fall-winter emperor goose hunting season is closed; ADFG did not issue registration permits for this hunt.

The AMBCC – Executive Committee recommended no change to the 2026 spring-summer subsistence season for hunting emperor geese; therefore, the season will remain closed consistent with the harvest strategy in the AMBCC Emperor Goose Management Plan.

As the terms of the 2016 emperor goose management plans have expired, the AMBCC and Council subcommittees met several times between October 2024 and April 2025 to continue discussions of revisions to the two management plans.

In May, the AMBCC – Executive Committee approved a revised harvest strategy from the AMBCC emperor goose management plan to include the implementation of a shorter harvest season as a conservation measure when the index is between 28,000 and 23,000. The closure dates are region specific and are intended to significantly reduce the spring harvest of emperor geese. Selection of each region’s closure dates is an ongoing discussion and is anticipated to be finalized by next spring.

The revised harvest strategy from the Management Plan for Emperor Geese is planned for Council’s consideration at the spring 2026 meeting.

Research Activity

Bryan Daniels (US Fish and Wildlife Service [Service] - Yukon Delta National Wildlife Refuge) reported that nesting effort of all geese at the Kigigak Island field site appeared high

in 2025. The apparent nest success of emperor geese on Kigigak Island was 75%. The field crew recorded 163 band re-sights of emperor geese and captured/banded 47 nesting females to estimate survival, which is calculated to be stable to slightly declining since 2016 (average annual survival from 2017- 2025 was 80%).

During brant and minima cackling goose banding drives on the YKD, Colorado State University banded 90 emperor geese and recaptured 2 birds previously banded in 2023. Tyler Lewis (ADFG) reported continuing a multi-year study tracking movements, habitat use, diet, and survival of emperor geese. This past winter ADFG conducted capture trips to Shemya Island, in the far western Aleutian Islands, and Kodiak Island during January and March 2025, respectively. Emperor Geese were captured at roosting and feeding locations using rocket nets, marked with uniquely coded tarsal bands, and isotope samples were collected. This marked the fourth and sixth winters deploying and re-sighting tarsal banded geese on Shemya and Kodiak, respectively. In total, ADFG deployed 55 new tarsal bands on Shemya and 107 bands on Kodiak. These data are being used by a graduate student at Colorado State University to compare annual survival and overwinter diet between Shemya and Kodiak Islands. In addition, a small number of adult female emperor geese (n = 31) were implanted with satellite transmitters (PTTs) during the breeding season on the YKD in June 2025, increasing the total number of transmitters deployed over the last seven years to 193 adult females and 45 juveniles. Lastly, ADFG continued a research project started in summer 2023 to better understand the effects of internal PTTs on the reproductive biology of emperor geese. Specifically, biologists visited nesting sites of PTT-marked adult females to ascertain effects of implanted PTTs on egg morphology, clutch size, and timing of breeding. Biologists found 25 nests of marked birds and preliminary indications suggest a reduction in clutch size and little or no effect on egg morphology.

Data collected by US Geological Survey-Alaska Science Center (USGS-ASC) and the Service were used to examine the influence of environmental variation on nest-site fidelity of emperor geese on the YKD in Alaska.

Thompson et al. 2024. Previous reproductive success and environmental variation influence nest-site fidelity of a subarctic-nesting goose. <https://doi.org/10.1002/ece3.70313>

USGS-ASC scientists are investigating the population structure of emperor geese breeding on the YKD and Seward Peninsula in Alaska. This research will help determine whether emperor geese breeding at these sites represent genetically distinct populations with some degree of demographic independence. <https://doi.org/10.5066/P14E9MIT>

Recommendations

The subcommittee adopted one recommendation:

- The subcommittee recommends no change to the 2026–2027 Alaska Season Frameworks for emperor geese.

Western Tundra Swan Subcommittee

Russell Woolstenhulme, Nevada Department of Wildlife

Population Status

The status of Western Population (WP) tundra swans is measured using a 3-year average of the breeding ground index, which includes the combined total bird indices from the Waterfowl Breeding Population and Habitat Survey (Strata 8-11) and the Yukon Kuskokwim Delta Coastal Zone Survey (Pacific Flyway Council 2017). The 2025 breeding ground index was 72,917 (95% CI: 45,821–100,013) and the most recent 3-year (2023–2025) average was 73,015 (95% CI: 52,563–93,466) swans, 22% above the management plan objective of 60,000 tundra swans. During winter 2024–2025, the following states counted tundra swans: California – 39,415 (Delta not surveyed); Oregon – 16,133 (2,962 tundra swans, 176 trumpeter and 12,995 unknown species); Utah – 13,641; Nevada – 1,318.

Harvest Information

Hunting of WP tundra swans is regulated by state-issued permits, which allow for reliable estimates of hunter activity and harvest. Allocation and number of permits within the Pacific Flyway in 2024–2025 were as follows: Alaska – 136; Idaho – 50; Montana – 500; Nevada – 750; and Utah – 2,750. During the 2024–2025 seasons, the following harvest was reported: Alaska – 21 swans; Idaho – 24 swans (13 trumpeter swan); Montana – 129 swans (31 trumpeter swans); Nevada – 179 swans; and Utah – 983 swans.

Management Activity

None reported.

Research Activity

None reported.

Recommendations

The subcommittee adopted two recommendation(s):

- The subcommittee recommended no changes to the framework for swan seasons.
- The subcommittee recommended no change to the framework for swan seasons in Alaska

Pacific Trumpeter Swan Subcommittee

Brandon Reishus, Oregon Department of Fish and Wildlife

Population Status

To assess abundance the flyway uses and index that is the estimated number of total (single, paired, and flocked) swans observed in strata 1-4, 6 & 7 in Alaska from the Waterfowl Breeding Population and Habitat Survey. The 2025 total birds index was 21,058 (SE 6,188; 95%CI 8,930 to 33,186) and the 3-year average was 17,240 (SE 4,208; 95%CI 8,993 to 25,487). The 2025 index is 43% above the LTA and the 3-year average is 72% above the population objective of 10,000 swans.

Washington Department of Fish and Wildlife (WDFW) reported that during the 2024-2025 winter 11,148 trumpeter swans were counted in northwest Washington and southwest British Columbia, up from 7,694 the previous winter.

Harvest Information

Population is not subject to harvest.

Management Activity

Washington Department of Fish and Wildlife (WDFW) reported that during the 2024-2025 winter, 84 trumpeter swan mortalities were recorded attributed to lead poisoning, powerline strikes or suspected of Highly Pathogenic Avian Influenza (sampling priorities did not allow for confirmation swabs on all individuals). A total of five trumpeter swans were rehabilitated, marked with a neck collar, and released. WDFW, in partnership with Puget Sound Energy, Snohomish Public Utilities District, Northwest Swan Conservation Association, Whatcom Humane Society, and Canadian Wildlife Service will continue response and monitoring of this chronic issue in northwestern Washington.

The subcommittee is working towards a revision of the Council's management plan for Pacific population trumpeter swans and intends to change the plan to a status review document, similar to the Pacific population of sandhill cranes. The subcommittee plans to have the document ready for Council consideration in early 2026.

Research Activity

WDFW through support of a graduate student project at California State Polytechnic University – Humboldt (CalPoly-Humboldt), deployed 19 GPS-GSM neck collars during January 2024 related to questions about movement and habitat use in the Skagit Valley of Washington, and migration routes and timing to breeding areas. A final report will be shared with the subcommittee in future meetings.

Recommendations

The subcommittee did not adopt any recommendations.

Eastern Tundra Swan Subcommittee

Jason Schamber, Alaska Department of Fish and Game

Population Status

The management index for the Eastern Population (EP) of tundra swans is the 3-year average of the Mid-winter Waterfowl Survey in the Atlantic (AF) and Mississippi flyways, and Ontario Canada. In 2025, a total of 77,205 swans were counted during the survey. The 3-year average (2023–2025) mid-winter index was 93,3141; 16% above the population objective of 80,000 swans, but below the 110,000-swan threshold that allows for 12,000 permits to be issued in the 2026–2027 season.

Tundra swans breeding east of Point Hope, Alaska and across the Alaska Arctic Coastal Plain (ACP) belong to the EP (versus the Western Population of tundra swans), as they winter principally in the AF from New Jersey to South Carolina. The 2025 total bird index from the ACP survey was 12,865 (SE: 922); below the long-term (2007–2025) average of 14,717 birds.

Harvest Information

There is not a permitted fall-winter harvest of EP tundra swans in Alaska.

The spring-summer subsistence harvest has not been surveyed since 2019.

The total harvest in the AF and Central Flyway (CF) in 2024–2025 was 3,980 swans: DE (181), NC (2,612), VA (120), MT (79), ND (756), and SD (232).

Management Activity

None reported in the Pacific Flyway.

No change in the number of EP swan permits (approximately 5,600 in AF and 4,000 in CF) is anticipated for the 2026–2027 season.

Research Activity

None reported.

Recommendations

The subcommittee had no recommendation(s).

Rocky Mountain Population Trumpeter Swan Subcommittee

Claire Gower, Montana Fish, Wildlife, and Parks

Population Status

The U.S. Fish and Wildlife Service (USFWS) reported the most recent survey of the U.S. breeding segment of Rocky Mountain Population (RMP) trumpeter swans was conducted during September 2024. The survey includes data from the tri-state region (Idaho, Montana, and Wyoming) and restoration flocks (in Montana, Nevada, and Oregon). Fall survey data are used to monitor the total number of white birds and cygnets fledged in relation to Flyway Management Plan objectives.

Observers counted 1,003 total trumpeter swans (695 white birds and 308 cygnets) in the U.S. breeding segment for RMP trumpeter swans during fall of 2024. The management index is based on total white swans (adults and subadults) with 718 white birds being the plan objective. The current 1-year index of 695 is 3% lower than the objective of 718. The three-year index is 704 white birds (202-2024), and the long-term average is 510 white birds.

Colorado reported they conduct a trumpeter swan survey in the Colorado portion of Browns Park; the goal is to complete a census along the 18-mile reach of the Green River in Browns Park and associated wetlands, three times throughout the winter (mid-month Dec, Jan and Feb). The 2024-2025 survey counted 52, 34, and 44 total birds respectively in December, January, and February (compared to 34, 71, and 85 in the same months, 2023-2024).

Other State specific winter count data were reported in the spring subcommittee report.

Harvest Information

Final harvest estimates from the 2024-2025 swan hunting seasons show that Utah harvested 983 total swans with no legal harvested trumpeter swans (8 trumpeter swans were illegal takes). Idaho harvested 24 swans of which 13 were trumpeter swans. Nevada harvested 179 swans with no harvest of trumpeter swans. Montana harvested 129 swans of which 31 were estimated to be trumpeter swans. A total of 1,315 swans were harvested to include 44 legally harvested trumpeter swans (representing 3.4% of the swan harvest in the RMP). Montana had 86% and 81% compliance rate of questionnaires and bill cards, respectively.

The group discussed Idaho possibly expanding the number of swan permits issued in their state, but will wait to see the results of the ongoing isotope analyses and the determination of genetic origin of harvested trumpeter swans in Idaho. No action is being pursued at this time.

Management Activity

The Subcommittee worked extensively with the USFWS Migratory Bird Program to explore alternative methods to monitor RMP trumpeter swan population abundance and trends. The Waterfowl Breeding Population and Habitat Survey (WBPHS) is conducted annually and can provide a reliable and cost-effective method for obtaining a baseline assessment of RMP trumpeter swan population status in Canada (see recommendation)

A revision, of the current 2017 Management Plan, will start in 2026. The objective is to streamline the plan and make more consistent with other Flyway management plans.

Following guidelines in the Pacific Flyway Management Plan for Rocky Mountain Population (RMP) trumpeter swans, and as recommended by Council, state leads discussed an equitable allocation of available cygnets in early July 2025. Wyoming Wetlands Society (WWS) is the primary source of captive-reared trumpeter swans of RMP genetic origin for release at approved sites. During 2025, WWS produced 27 RMP origin cygnets for allocation, these will be allocated to Middle Madison, MT (9), Yellowstone Nation Park (9), Teton Basin, ID (9), to be released fall 2025 (see Informational note)

Oregon will not be requesting cygnets from WWS, but there are 12-13 captive-reared trumpeter swan cygnets of Pacific or mixed population genetic origin that were available for allocation in 2025. These swans were hatched at various (seven) zoos or waterfowl conservancies across the country. Per Council direction, they are not releasable in Idaho, Montana, or Wyoming and Summer Lake Wildlife Area – Oregon is the only approved release site outside of those states. These swans will be moved to an over-wintering facility at Zoo Idaho, Pocatello, ID early this fall and released at Summer Lake Wildlife Area in June 2026 as yearlings.

Four yearlings were released on Eden Reservoir (Sweetwater County) as part of the Wyoming Big Sandy project on July 17th2025. This is the newest incoming project approved for allocation, therefore, will not be taking cygnets from WWS this year to give the other projects a full allocation.

It is likely the last year of releases at the Middle Madison and Teton Basin project due to the lack of successful nesting pairs in both areas. The Summer Lake Wildlife Area restoration project has a goal of 10 nesting pairs; they are at an all-time high of six nesting pairs this summer. The project will likely release captive reared birds for two-three more years.

Turnbull National Wildlife Refuge had four pairs this year, three pairs attempted to nest, and two pairs produced cygnets. The refuge needs to drain down a management unit for some structural repairs. Prior to this, the refuge will work with Washington Department of Fish and Wildlife to deploy one or two GSM collars on separate pairs to document the forced dispersal.

Dave Olson, USFWS, R6 retired spring 2025. Dave has been instrumental in leading the U.S Segment RMP trumpeter swan fall survey. This year the survey is set for Sept 21st, 2025, but core dates are Sept. 23-25. This will be combined with the RMP fall crane survey. Todd Sanders (USFWS) and Steve Olson (USFWS) have been working to update the fall survey and more clearly outline the spatial representation of the survey and the survey areas. Observers will continue to count total swans classified as white or gray but are not counting broods.

Research Activity

As part of the restoration work, collars have been deployed on trumpeter swans in Idaho and Wyoming; Idaho Game and Fish Department reported in 2023, four cygnets were collared with GSM collars with two mortalities within the first year (unknown cause of death). One bird was still known to be alive and likely molting at Harriman State Park as of August 2025, but it is

currently off the radar. The final collared bird went off the radar after a year but was spotted alive by the public with a broken/damaged collar near Rexburg ID. In 2024 all eight cygnets that were release were collared. Seven of them died in Teton Basin that fall. The eighth bird is still alive in Teton Basin. No birds will be collared this year after seeing the high mortality last year.

Wyoming game and fish reported in 2024, five yearlings were collared/released (2023 allocated birds) with GSM collars mid-June. Three were confirmed mortalities within five months of release. Of the remaining two birds, one has been resighted, but it does not have a collar. The fate of bird five is unknown (no collar data transmitting). In 2025, four yearlings were collared/released four yearlings mid-July in the Farson vicinity. These birds were Wyoming's 2024 allocation. Three different collars types were used; two have GSM/VHF (OrniTrack) capabilities, one has GSM/Argos satellite (CTT) capabilities, and one is homemade with VHF capability. Wyoming will not conduct additional releases during 2025, they intend to release birds in 2026 should they receive an allocation. They intend to collar birds that are yearlings and will discuss options for cygnets.

Oregon continues to have GSM collars online; the remaining birds are currently out of cell reception but are expected to connect to a tower and download data soon.

A manuscript "Movements and habitat use of the Rocky Mountain Population of trumpeter swans" has been published (9-10-2025) in Journal of Fish and Wildlife Management. This work was led by Sharon Poessel, USGS.

Isotope work is being conducted by Todd Katzner (USGS) and Nicole Ibrahim at University of Maryland Center for Environmental Science. A manuscript is in preparation with a potential submission date spring 2026.

Recommendations

The subcommittee adopted two recommendation(s):

- The subcommittee recommends The Pacific Flyway Council (Council) adopts the revised population objective for Rocky Mountain Population (RMP) trumpeter swans to inform population status given discontinuation of the North American Trumpeter Swan Survey (NATSS).
- The subcommittee recommends no change to the frameworks for swan seasons (see Recommendation 13)

The subcommittee has one Informational Note to present to Council:

- Allocation of Captive-reared Trumpeter Swans to Approved Release Sites

Western Management Unit Mourning and White-winged Dove Subcommittee

Kyle Spragens, Washington Department of Fish and Wildlife

Population Status

The predicted abundance of mourning doves and respective credible intervals for 2025 in the WMU is 53.18 million (70% CI: 45.93-60.40 million). The predicted abundance is consistent with the “Standard” regulatory as prescribed by the harvest strategy.

The estimated abundance (index, birds per route) of Western Management Unit white-winged doves during spring 2024 was 75.12 (95% CI: 50.38-117.92). The harvest strategy is based on the lower 70% credible interval of the most recent moving 3-year average abundance, which for 2022-2024 was 74.05, above the management threshold of 34.0 for the “Standard” alternative prescribed by the harvest strategy.

Harvest Information

The 2024 WMU mourning dove harvest estimate was 1,534,500, an increase of 62% from 2023. The 2024 white-winged dove harvest estimate was 150,000, an increase of 79% from 2023.

Management Activity

In 2024, the U.S. Fish and Wildlife Service updated the mourning dove harvest strategy to replace the current discrete logistic model with the Integrated Population Model available for the Western Management Unit and the Pacific Flyway Council adopted the revised Management Plan for Western White-winged Dove. Both have been formally incorporated into recommendations influencing the 2026-2027 season setting process.

States reported preliminary banding results for 2025, including: Arizona (3,935 mourning dove and 1,095 white-winged dove), California (2,585 mourning dove), Idaho (697 mourning dove), Nevada (355 mourning dove), Oregon (787 mourning dove), Utah (220 mourning dove), Washington (816 mourning dove).

The Subcommittee will discuss the development of a revised harvest strategy for mourning dove, based on updates from Dove Task Force members, during the spring work meeting.

Research Activity

None reported.

Recommendations

The subcommittee adopted one recommendation:

- The subcommittee recommends no change to the season framework for mourning dove and white-winged dove in the Western Management Unit.

Pacific Coast Band-tailed Pigeon Subcommittee

Melanie Weaver, California Department of Fish and Wildlife

Population Status

Pacific Coast band-tailed pigeon population indices are monitored by the mineral site survey (MSS) that was implemented in 2004. Results from the 2025 assessment of the MSS data suggested no significant trend in the median annual count of Pacific Coast band-tailed pigeons observed at mineral sites during the long-term (2004-2025), last ten years (2016-2025) and last five years (2021-2025), indicating no evidence for a change in Pacific Coast band-tailed pigeons over those time periods.

Harvest Information

Harvest and hunter participation are estimated from the Migratory Bird Harvest Information Program. Preliminary estimates from 2024 indicated total harvest, active hunters, and total hunter days afield for Pacific Coast band-tailed pigeons were 3,400 pigeons, 1,600 hunters, and 3,800 days afield, respectively. Age ratio from 227 wings was 27.8% young.

Management Activity

None reported.

Research Activity

California plans to mark 30 BTPI. Fifteen will be deployed on birds in Santa Cruz area and the other half in the Sierra.

Washington continued to mark pigeons with GSMs, shifting from Olympic peninsula to northern part of state (lower elevation of Cascade Mountain Range) with the objective of locating mineral sites because some survey sites have been lost without adding new locations. A summary will be available at the Spring meeting.

Joe Sands/Region 1, banded 14 in southern Oregon in spring 2025. Looking to mark additional birds with GSMs in the future.

Nevada reported 7 out of 10 marked birds (summer marking) returning from wintering range in the northern to central Sierras of California

Recommendations

The subcommittee adopted one recommendation:

The subcommittee recommends no change to the season framework for Pacific Coast band-tailed pigeons.

Interior Band-tailed Pigeon Subcommittee

Adam Behney, Colorado Parks and Wildlife

Population Status

For the Interior population, the North American Breeding Bird Survey (BBS) indicated a long-term (1968–2024) decline (-2.1% per year, 95% credible interval = -4.6 to -0.5) in abundance, and that there were no trends during the recent 10- and 5-year periods. Caution should be used in interpreting results, particularly for the Interior region, because sample sizes (routes) and pigeon counts per route are low, variances are high, and coverage of habitat by BBS routes is poor (Seamans 2025).

Harvest Information

For the Interior band-tailed pigeon, the number of hunters who obtained a special permit was 3,186, 1,533, and 222 in Colorado, New Mexico, and Utah, respectively. All hunters who obtained a special permit were surveyed. The permit was free, except in Colorado, where the cost was \$5. For Interior band-tailed pigeons during 2024, total harvest, active hunters, and total hunter days afield were 1,100 (600-1,500) pigeons, 1,100 hunters, and 3,100 (2,300-3,900) days afield, respectively (Seamans 2025).

Seamans, M. E. 2025. Band-tailed pigeon population status, 2025. U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C.

Management Activity

None Reported

Research Activity

In 2024, Arizona Game and Fish Department purchased 50 GPS/GSM solar-powered transmitters. Pre-baiting and trapping for BTPI commenced in June 2024 and continued into the fall. They successfully trapped and leg-banded 55 pigeons, deploying backpack transmitters on 42 of them, at five locations within Arizona.

Over the summer and fall of 2024, there were 13 presumed mortalities observed, most of which appeared to be predation by raptors. They were able to recover about half of the transmitters from bird mortalities for reuse; a few transmitters were lost at locations where they proved to be unrecoverable. At migration time last fall/winter, all birds with transmitters appeared to migrate into Mexico, primarily into Sonora, and to date, only seven birds with transmitters returned across the US border in 2025. One of those was subsequently depredated, and the other six transmitters uploaded points initially and have been spotty since. It appears that most of the other transmitters deployed have stopped working prematurely so they do not expect to see much more from them.

Arizona ordered another 40 transmitters in spring 2025, intending to greatly expand the number of telemetered birds, but pigeon numbers seemed to be generally lower overall across the state this year. They hypothesize that due to sustained drought, birds did not find the abundance of resources this spring/summer that they had available to them last spring and summer, so they likely kept moving to other places. Thus far in 2025, they have trapped and banded 10 birds and deployed backpacks on 9. Trapping efforts will continue as staff have availability to do so.

Recommendations

The subcommittee adopted one recommendation:

- The subcommittee recommends no change to the season framework for Interior band-tailed pigeons.

Central Valley and Pacific Coast Populations of Sandhill Crane Subcommittee

Melanie Weaver, California Department of Fish and Wildlife

Population Status

The Midwinter Survey occurred in the Central Valley of California in early January 2025 however, indices are still in draft form with preliminary estimate of 59,501. The 2024 estimate was 50,008 cranes. Nevada continues to see nesting cranes in Douglas and Washoe counties.

Harvest Information

The Pacific Coast Population of sandhill crane is not subject to fall/winter harvest in Washington, Oregon, or California. Alaska fall harvest was 72 sandhill cranes.

The Alaska subsistence harvest survey has not been conducted since 2019.

Management Activity

None reported.

Research Activity

Ongoing research at Ladd Marsh in Oregon.

The U.S. Geological Survey-Western Region marked 20 cranes with GSMs in the California Delta region for unknown reasons.

Recommendations

The subcommittee adopted one recommendation:

- The subcommittee recommends no change to the Alaska season frameworks for sandhill cranes.

Rocky Mountain Population—Sandhill Crane Subcommittee

Dr. Larisa Harding, Arizona Game and Fish Department

Population Status

The September 2024 survey of the Rocky Mountain Population (RMP) of sandhill cranes (cranes) detected 24,909 cranes, a decrease of 2,358 (-8.6%) from 2022 (18,632 cranes). The most recent 3-year average (2022–2024) is 23,603 cranes. This average is greater than the population objective of 17,000–21,000 cranes described in the Pacific Flyway Council (Council) RMP Sandhill Crane Management Plan.

Harvest Information

State harvest estimates for the 2024–2025 crane seasons indicate Arizona harvested 28 (from an allocated 223), Idaho harvested 275 (from an allocated 298), Montana harvested 167 cranes (from an allocated 588), New Mexico harvested 663 (from an allocated 1,063), Utah harvested 262 (from an allocated 356), and Wyoming harvested 318 (from an allocated 374). The reported harvest does not include crippling loss. The 2024–2025 total harvest estimate was 1,713 which was 59% of the total harvest allocation of 2,902.

Management Activity

Modification of an existing RMP crane hunting district in Lewis and Clark County, Montana: The proposed modification would incorporate a small portion of Lewis and Clark County (that portion of Lewis and Clark County east of I-15) into the existing Broadwater County Zone 4/Hunt District 390. Crane hunting would not be permitted in the south half of the Lake Helena closure area. This change would provide slightly more crane hunting opportunity for RMP sandhill cranes in Montana and proactively address potential crane crop depredation, but overall harvest is expected to remain well within the state allocation. Anticipated harvest from the hunt area modification is expected to be negligible. All crane harvest would be attributed to the RMP. Arizona Game and Fish Department added four hunts in January 2026 within existing Zone 1 to address potential depredation by sandhill cranes on agriculture. In Wyoming, USDA APHIS Wildlife Services conducted depredation removals in an RMP area (Zone 8 near Casper, WY); in summer 2025, they removed two of 25 allowed removals.

In Colorado, March 2025 marked the tenth year biologists and Area staff in Areas 18 and 16 monitored sandhill crane numbers during the winter around the Delta and the Uncompahgre Valley area. Prior to the mid-2000s, sandhill cranes primarily only stopped briefly in the Hart's Basin area northeast of Delta during the spring and fall migration. However, use by cranes shifted more to the Delta area and the cranes also began overwintering. Numbers of cranes overwintering near Delta increased rapidly at first but recently seem to have leveled off at around 4,000 to 5,000 cranes the last few years. This is around 16–20% of the estimated roughly 23,000 individuals in the Rocky Mountain population of greater sandhill cranes, which mostly winter in central New Mexico. In the spring, cranes in this population migrate north to spread across Northwest Colorado, Idaho, Montana, Utah, and Wyoming to nest in wetland areas and raise young. When such a significant portion of the Rocky Mountain Population of greater sandhill cranes stop short of their historic migration by overwintering in Delta, they are not included in fall recruitment surveys that take place at other points in their migration like the San Luis Valley. Future efforts to monitor cranes in the Delta area will focus more on age structure by

implementing an annual recruitment survey.

In New Mexico, the Bosque del Apache NWR is forgoing farming for the foreseeable future and their ability to farm will be evaluated on an annual basis. A limited amount of triticale is on the ground and will be available. Currently resources are limited and they are barely able to keep up with moist-soil units managed on site.

The New Mexico Department of Game and Fish Ladd S. Gordon Waterfowl Complex has experienced water delivery issues and has a limited amount of corn planted and growing at the Bernardo Unit (~100 acres = 400k lbs). Limited water and food resources are concerning because an estimated 2.2 million pounds of food are needed to support overwintering RMP birds found on both State and Federal properties.

A habitat conversion plan for the Herkenhoff (Indian Hills Farm) that includes corn is being developed between multiple partners in the Middle Rio Grande Valley. The property is part of mitigation for the SunZia Transmission line project.

The annual RMP staging area/recruitment survey is scheduled for the week of September 21, 2025, with core dates on September 23–25, 2025.

Research Activity

Idaho Department of Fish and Game is working with Dr. Rachel Vanausdall (CSU) and Dan Collins (formerly USFWS) to investigate potential impacts of hunt timing on sandhill crane populations in eastern Idaho, with the intent to determine impacts to resident nesting birds versus impacts to migrant birds through timing of arrival, duration of stay, and departure times of sandhill cranes in eastern Idaho.

Dan Collins, now at the Borderlands Research Institute-Sul Ross State University (Alpine, TX), started a Master's student in fall 2025 to assess wintering habitat suitability for sandhill cranes in the southwestern USA (i.e. TX, NM, AZ, and southeast CA) and the Mexican Highlands, including RMP birds. Specific objectives currently include 1) developing habitat suitability and species distribution models using existing data sets and sources (e.g. GPS locations, NDVI), 2) evaluating factors influencing habitat suitability, resource selection and species distribution, and 3) integrating ecological and management implications to support restoration and conservation strategies.

In USFWS Region 2, in the next two seasons (2025-2026, 2026-2027), 100 GSM-GPS transmitters will be deployed as a follow up study to the 'Spatially Explicit Assessment of Sandhill Crane Exposure to a Potential Transmission Line'. This will occur in the Middle Rio Grande Valley in New Mexico as part of research to study the impacts of the SunZia transmission line across the Rio Grande. The consulting firm, GSA, will simultaneously evaluate the Avian Collision Avoidance System on the SunZia transmission line, and GPS data collected will be available to State partners if there is interest, but GSA will hold the data and data-sharing agreements with them will be needed.

As a note, older satellite (Boggie et al. 2014–2018) and GSM (Collins et al. 2017–2025) units

deployed on RMP cranes are reaching end-of-life and shutting down; complete data are available on MoveBank or via approved SharePoint.

The following publication may have implications for RMP sandhill crane management:

- Vanausdall, R.A., W.L. Kendall, D.P. Collins. 2025. *Antigone canadensis* (Sandhill Crane) foraging patterns influenced by crop type, roost distance, and tillage intensity during spring and autumn migration at a primary stopover area. *Ornithological Applications* 10.1093/ornithapp/duaf027

Recommendations

The subcommittee adopted two recommendations:

- The subcommittee recommends no change in the season framework for Rocky Mountain Population (RMP) sandhill cranes, except:
 - Montana will expand an existing RMP sandhill crane hunt district (Zone 4 – MT HD 390) in west-central Montana to include a portion of Lewis and Clark County and increase the number of permitted hunters from 25 to 35 (with 2 crane tags/permit).
- The subcommittee recommends that allowable harvest will be determined by the formula described in the Pacific and Central Flyway Management Plan for the Rocky Mountain Population of Sandhill Cranes pending results of the 2025 fall abundance and recruitment surveys.

Lower Colorado River Valley Population of Sandhill Crane Subcommittee

Dan Collins, U.S. Fish and Wildlife Service – Southwest Region

Population Status

The annual count conducted by AZGFD was 2,927 resulting in a three-year running average of 4,267.

Harvest Information

No harvest is associated with this population.

Management Activity

Arizona is still trying to pursue a hunt in LCRV. Coordination has been slow with National Wildlife Refuges along the Lower Colorado River to update the EA and Hunt Plans due to shifting staff and reduced work capacity of USFWS personnel.

Research Activity

N/A

Recommendations

- No recommendation at this time.

Midcontinent Population of Sandhill Crane Subcommittee

Dan Collins, U.S. Fish and Wildlife Service – Southwest Region

Population Status

The annual count conducted in the spring on the Platte River resulted in 1,406,071 ($\pm 344,510$) and a three-year running average of 1,028,703 ($\pm 222,612$). Also conducted in the spring the Yukon Kuskokwim Delta (YK Delta) Coastal Zone Survey counted 10,838 (± 749) indicated total birds with a three-year running average of 12,822 (± 949). The YK Delta Coastal Zone survey additionally estimated 10,669 (± 746) breeding sandhill cranes.

Harvest Information

The Alaska harvest estimate was 1,232 in 2024.

Management Activity

None reported.

Research Activity

None to report.

Recommendations

The subcommittee recommends no change in the Alaska and Arizona season frameworks for MCP sandhill cranes.

Double-crested Cormorant Subcommittee

Michelle Kemner, Idaho Department of Fish and Game

Allison Begley, Montana Fish, Wildlife and Parks

Michelle McDowell, U.S. Fish and Wildlife Service

Jessica Stocking, Washington Department of Fish and Wildlife

Emily VanWyk, Oregon Department of Fish and Wildlife

Survey Goal

The Pacific Flyway Council (Council) directed the Nongame Technical Committee (NTC) to develop and implement the Double-crested Cormorant Monitoring Strategy (Strategy; Pacific Flyway Strategy 2013). The goal of the Strategy was to establish a coordinated, long-term, Flyway-level monitoring effort to estimate breeding population size, trend, and distribution of the Western Population of cormorants. The information collected would be used to guide and assess management actions pertaining to cormorant depredation on fish resources. Management often includes take authorization by the U.S. Fish and Wildlife Service (Service). In 2020, the Service prepared an Environmental Impact Statement (EIS) for managing conflicts in the lower 48 states, across four populations, including the Western population (USFWS 2020). This included a Potential Take Limit Model (PTL) that corresponded with a biologically sustainable level of maximum annual take based on knowledge of cormorant population dynamics. In 2022, the Service, in cooperation with the U.S. Department of Agriculture, Wildlife Services and the Flyways, developed a more coordinated monitoring program to improve estimates of cormorant abundance. This new monitoring program was implemented across the Flyways in 2024.

Survey Summary

In March 2023, the cormorant subcommittee provided a full briefing of surveys conducted between 2014 and 2021 to Council. In 2024, the Service, NTC partner states, and others monitored colony sites and colony complexes (i.e., collection of closely associated colonies) using the new sampling protocol. The NTC coordinated data collection and submission to the Service, who then calculated a 2024 estimate of the Western Population as described in the EIS. That estimate is being used to update the PTL for the Pacific Flyway.

Survey Results

The 2024 point estimates for the Western Population are lower than the 2014–2021 breeding population estimates (Table 1, Fig. 1).

Table 1. Annual double-crested cormorant population size estimates, variance, and 95% confidence levels, in western North America, 2014–2024.

		Population estimate	Standard error	CV (%)	Estimated LCL	Estimated UCL
2014	Pairs	36,719	1,611	4.4%	33,562	39,875
	Individuals	73,437	3,221	4.4%	67,124	79,751
2015	Pairs	36,152	1,977	5.5%	32,278	40,026
	Individuals	72,304	3,953	5.5%	64,556	80,052
2016	Pairs	35,792	2,811	7.9%	30,283	41,302
	Individuals	71,585	5,622	7.9%	60,566	82,604
2017	Pairs	21,537	1,771	8.2%	18,066	25,008
	Individuals	43,074	3,542	8.2%	36,132	50,016
2018	Pairs	29,785	2,876	9.7%	24,148	35,423
	Individuals	59,571	5,753	9.7%	48,295	70,847
2019	Pairs	22,889	3,553	15.5%	15,925	29,854
	Individuals	45,778	7,107	15.5%	31,849	59,708
2021	Pairs	24,849	3,937	15.8%	17,132	32,566
	Individuals	49,698	7,875	15.8%	34,264	65,132
2024	Pairs	20,738	3,901	18.8%	13,092	28,383
	Individuals	41,476	7,802	18.8%	26,184	56,766

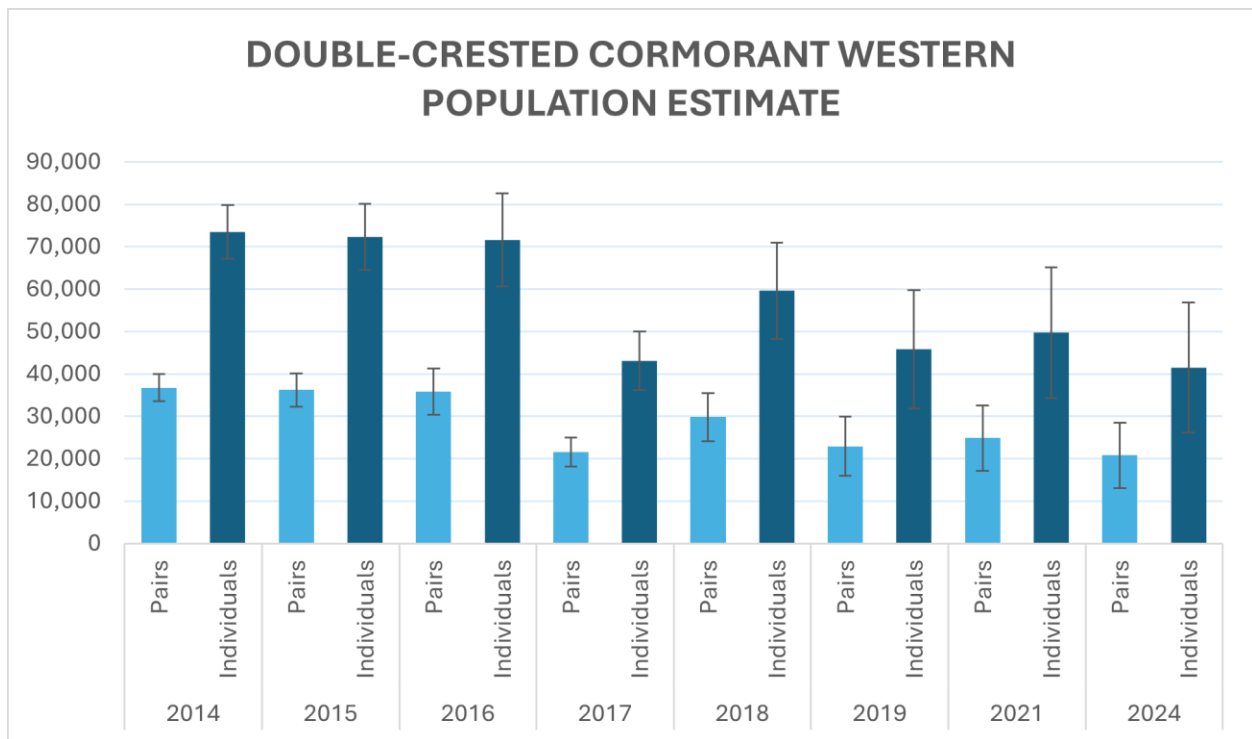


Figure 1. Annual estimates of double-crested cormorant population size (95% confidence levels) in western North America, 2014–2024.

Discussion

The strength of the Strategy has been the ability to detect change from 2014 to present with a predetermined level of statistical power. Monitoring methods were standardized across the Western Population using a sampling approach that does not require monitoring of all colonies. Moreover, the U.S. portions of the Mid-Atlantic and Atlantic subpopulations used a monitoring method similar to PFC's Strategy in 2024. Coordination of the Pacific Flyway's monitoring effort was accomplished through the NTC, with NTC members coordinating within their agencies and with partners in their states.

Based on the new population estimate, the current DRAFT PTL for cormorants in the Western population is calculated to be 3,267 (Seamans et al. in review), which is a 28% decrease compared to the PTL defined in the 2020 EIS (n=4,539).

Future Monitoring Plans

Surveys will be conducted every five years. The Service will use the monitoring data to inform their permitting decisions associated with the National level EIS, Management of Conflicts Associated with Double-crested Cormorants (USFWS 2020). The next Flyway-wide survey will be conducted in 2029.

References

- Pacific Flyway Council. 2013. A monitoring strategy for the Western Population of double-crested cormorants within the Pacific Flyway. Pacific Flyway Council, U.S. Fish and Wildlife Service, Portland, Oregon.
- Seamans, M., M. Wells, R. Pierce, M. McDowell, J. Hostetler, and B. Dorr. *in draft*. Double-crested cormorant abundance in North America and updated allowable annual lethal take calculations in the United States. USFWS Briefing Memo, 5pp.
- U.S. Army Corps of Engineers. 2015. Double-crested cormorant management plan to reduce predation of juvenile salmonids in the Columbia River Estuary-Final Environmental Impact Statement. <http://www.nwp.usace.army.mil/Missions/Current/CormorantEIS.aspx>.
- U.S. Fish and Wildlife Service. 2020. Final Environmental Impact Statement: Management of conflicts associated with Double-crested cormorants. U.S. Dept. of the Interior, USFWS, 5275 Leesburg Pike, Falls Church, VA 22041-3803
https://www.fws.gov/regulations/cormorant/sites/default/files/2021-11/Cormorant_EIS_11-12-2020_signed.pdf
- U.S. Fish and Wildlife Services. 2022. U.S. Fish and Wildlife Service final report: Recommendations for implementing a monitoring strategy for Double-crested cormorants in the United States, U.S. Fish and Wildlife Service:
<https://www.fws.gov/sites/default/files/documents/recommendations-implementing-monitoring-strategy-double-crested-cormorant-march-2022.pdf>

Full Flyway Engagement Subcommittee

Emily VanWyk, Nongame Technical Committee (NTC) Oregon Department of Fish and Wildlife

Jason Jones, Study Committee (SC), Utah Division of Wildlife Resources

Russell Norvell, NTC, Utah Division of Wildlife Resources

Jeff Knetter, SC, Idaho Department of Fish and Game

Allison Begley, NTC, Montana Fish, Wildlife and Parks

Adam Behney, SC, Colorado Parks and Wildlife

Grant Frost, NTC, Wyoming Game and Fish Department

Edwin Juarez, NTC, Arizona Game and Fish Department

Jason Chamber, SC, Alaska Department of Fish and Game

Julie Hagelin, NTC, Alaska Department of Fish and Game

Jess Brooks, NTC, Nevada Department of Wildlife

Michelle Kemner, NTC, Idaho Department of Fish and Game

Kyle Spragens, SC, Washington Department of Fish and Wildlife

Jess Stocking, NTC, Washington Department of Fish and Wildlife

Michelle McDowell, U.S. Fish and Wildlife Service

The Flyway Engagement Subcommittee (Subcommittee) was established by the Pacific Flyway Council (Council) in 2022 to enhance effective engagement across the entire Flyway in line with the bylaws of Council. The Subcommittee is tasked with implementing a Council-approved Action Plan that focuses on expanding participation, increasing accessibility to Flyway processes through efforts like translation and travel support, and identifying funding opportunities that enable broader contributions to migratory bird conservation and management throughout the Pacific Flyway.

Since the outset, the Subcommittee charge was to learn about resources, partners, and their needs as a means to build a framework for long-term, iterative engagement, and progress toward identified goals. Additionally, the group focused on clarifying relevancy of this effort to the Flyway process and migratory bird management across borders. Subcommittee work is ongoing, enhanced by targeted efforts to implement actions identified in 2023 that would advance the Flyway mission. The Subcommittee continues to promote initiatives identified within the Action Plan approved by Council as priorities:

- Expanding participation in Flyway processes
- Increasing communication through translation services and travel support; and
- Identifying funding opportunities to support broader contributions to migratory bird conservation and management.

At the August 2024 Council meeting, the Council approved a budget request from the Subcommittee to support continued engagement in 2025 within these focal areas. These funds enabled the Subcommittee to respond flexibly to both opportunities and challenges, while continuing to align its work with Flyway priorities.

The Subcommittee has remained active in fostering meaningful engagement across the Flyway. In response to Council direction from the August 2023 meeting, the Subcommittee also worked with the Nongame Technical Committee (NTC) and Study Committee (SC) Chairs to organize a

student symposium during the February 2025 meeting in Ogden, Utah. The symposium provided a platform for early-career biologists and students to present research aligned with Flyway goals. Additional partners providing presentations included Paso Pacifico, Pacific Birds Joint Venture, and the United States Geological Survey, to provide information relevant to the Flyway. Travel support was made available to invited participants; although many students were able to attend without financial assistance, the availability of this funding contributed meaningfully to the success of the event.

In August 2024, translation services were used for the Flyway meetings to facilitate collaboration with an invited Mexican partner. This presented the first opportunity to integrate the service into a Council presentation and the experience was well received and demonstrably enhanced communication. Translation was not required for the September 2025 meeting, but the Subcommittee continues to prioritize this capability to ensure accessibility for future discussions. Over the past year, the Subcommittee has continued to advance initiatives amid a shifting landscape marked by uncertainty in the availability of federal funds, limited capacity among federal partners, and a changing social atmosphere impacting travel for international partners. These constraints have limited partner engagement from reduced participation, postponement, or cancellation of several key opportunities. Furthermore, concerns among international partners regarding travel to the United States have presented additional barriers to participation in in-person meetings and events. However, the Subcommittee has remained flexible and proactive in identifying new avenues for engagement that align with Flyway priorities.

Funding allocated thus far in 2025 includes: support for the North American Arctic Goose symposium to be held in Saskatoon, SK during October 2025; support for the Partners in Flight Western Working Group in Helena, MT in October 2025; and support to invited student presenters at the February 2025 meeting in Ogden, UT. The Subcommittee has further opportunity during the 2025 calendar year for which details are still being finalized, including:

- Participation in or support for the Society for the Study and Conservation of Birds in Mexico in Ensenada, Baja California (CIPAMEX) conference as another opportunity to strengthen international engagement, especially Southern Wings partners of the Flyway.
- Evaluating the feasibility of attending the Pacific Northwest Native American Fish and Wildlife meeting, now rescheduled for October 2025 in Auburn, WA, and delivering a presentation on the work of the Flyway at that event to foster greater participation and awareness of the Flyway.

Ongoing outreach efforts will continue through collaboration with key organizations, including the Sonoran Joint Venture, the Alaska Migratory Bird Co-Management Council (AMBCC), Canadian Wildlife Service, and the Native American Fish and Wildlife Society. These engagements will help identify financial or logistical barriers to participation and shape future strategies for targeted support. The Subcommittee will continue to assess and refine its approach, focusing on expanding access, building partnerships, and aligning its work with the broader goals of the Pacific Flyway.