Highlights from the 2015 State Wildlife Action Plan Revision

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WDFW

#1 – Brief Overview

For Today:

1. Provide an orientation to the 2015 State Wildlife Action Plan
2. New Tools for advancing conservation – how the SWAP can help us to move forward
3. Review Public Comments - what we heard

IN BRIEF – What is the State Wildlife Action Plan?

- Congress created the State Wildlife Grants Program in 2001.
  - Awarded annually
  - WDFW receives approximately $1.2 million each year
- To be eligible each state must have an State Wildlife Action Plan (SWAP) that includes eight required elements.
- The first SWAPs were approved in 2005.
- Each SWAP requires updating every 10 years – Washington's SWAP Revision was due on October 1st, 2015.
- ..... and we submitted on September 29th!

The SWAP represents a significant investment!

It required us to:

- Conduct a comprehensive review of the species and habitats in the state– and identify those of Greatest Conservation Need.
- Identify the threats and conservation actions needed for both species and habitats.
- Outline approach for monitoring and adaptive management.
- Provide for public involvement and stakeholder engagement.

2015 Habitats of Greatest Conservation Need
30 ecological systems of concern

2015 Species of Greatest Conservation Need	
invertebrates	95
fish	51
amphibians	14
reptiles	12
birds	52
mammals	44
Grand Total	**268**


Important things to know




1. It is intended to be a comprehensive guide to *inform* WDFW strategic plans, work plans and priorities and *develop* State Wildlife Grant applications.

2. It highlights *conservation needs*, and provides information and *tools* to address those needs.

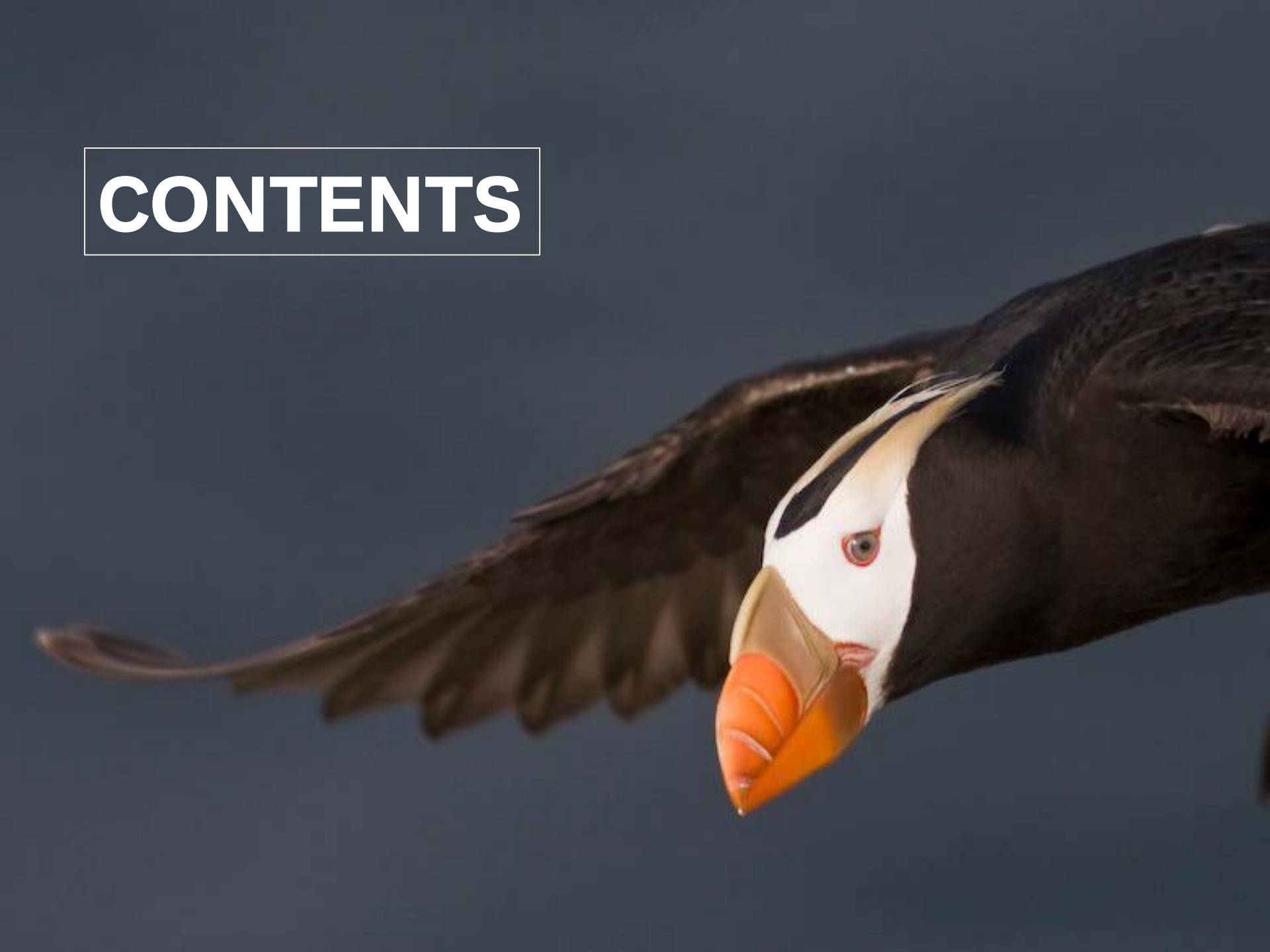
3. WDFW is the *primary* audience, but it is intended to be relevant to all conservation organizations.

#2
TOOLS AND RESOURCES in the State Wildlife Action Plan

– increasing our knowledge, advancing conservation efforts



CONTENTS



SWAP CONTENTS

VOLUME 1: Chapters 1-7

Chapter 1: Introduction and Overview
Chapter 2: State Overview
Chapter 3: Species of Greatest Conservation Need
Chapter 4: Habitats of Greatest Conservation Need
Chapter 5: Climate Change Vulnerability of Species and Habitats
Chapter 6: Monitoring and Adaptive Management
Chapter 7: Implementation

VOLUME 2: Appendix A -- Species Fact Sheets

Appendix A1 – Mammals
Appendix A2 – Birds
Appendix A3 – Amphibians and Reptiles
Appendix A4 – Fishes
Appendix A5 – Invertebrates

VOLUME 3: Appendices B-F

Appendix B: Range and Potential Habitat Distribution Maps
Appendix C: Climate Change Supporting Information
Appendix D: Outreach and Stakeholder Engagement
Appendix E: Summary of WDFW Prioritization matrix
Appendix F: Bibliography

Appendix A: Fact sheets for all 268 Species of Greatest Conservation Need

Appendix A - Fact Sheets for each SGCN

High level, two page summaries “at a glance”

- Summarizes conservation concern
- Biology and life history
- Distribution* (range maps for selected species) and abundance
- Top stressors and conservation actions needed
- Climate change vulnerability

CASCADE TORRENT SALAMANDER (*Rhyacotriton cascadae*)

*See Appendix B for a range and potential habitat distribution map

Conservation Status and Concern

This species is sensitive to temperature variation and increased sedimentation that may be caused by disturbances such as logging and road construction. Some populations are isolated by surrounding areas of unsuitable habitat and are vulnerable to extirpation through stochastic events exacerbated by habitat loss. Temperature sensitivity and limited dispersal ability makes this species potentially sensitive to climate change.

Federal Status	State Status	PHS	Global Ranking	State Ranking	Population size/trend	Climate Vulnerability
None	Candidate	Yes	G3	S3	Medium/unknown	High

Biology and Life History

Cascade torrent salamanders may be active year-round at lower elevations. Larval torrent salamanders have tiny external gills. Adults have very reduced lungs and breathe mostly through their skin. Breeding phenology is unknown, but may occur during most of the warmer months of the year. Eggs are most likely laid in the spring.

Photo: W. Leonard

Distribution and Abundance

In Washington, this species ranges from the west slopes of the Cascade Mountains south of Nisqually River to the Columbia River. Distribution is patchy. They can reach high densities in optimal habitat.

Habitat

This species is generally found in high-gradient, cold streams, seepages and waterfall splash zones, typically in areas with a thick canopy cover. Interestingly however, this species survived in many sites that were completely deforested by the 1980 eruption of Mount St. Helens. They usually occur in stream segments or off-channel habitats, such as seeps and waterfall splash zones, that are shallow, slow flowing and that have gravel or rock rubble that is silt-free.

Cascade Torrent Salamander:
Conservation Threats and Actions

	STRESSOR	DESCRIPTION			
1	Resource information collection needs	Lack of information on status and distribution.			

Cascade Torrent Salamander:
Conservation Threats and Actions

	STRESSOR	DESCRIPTION	ACTION NEEDED		
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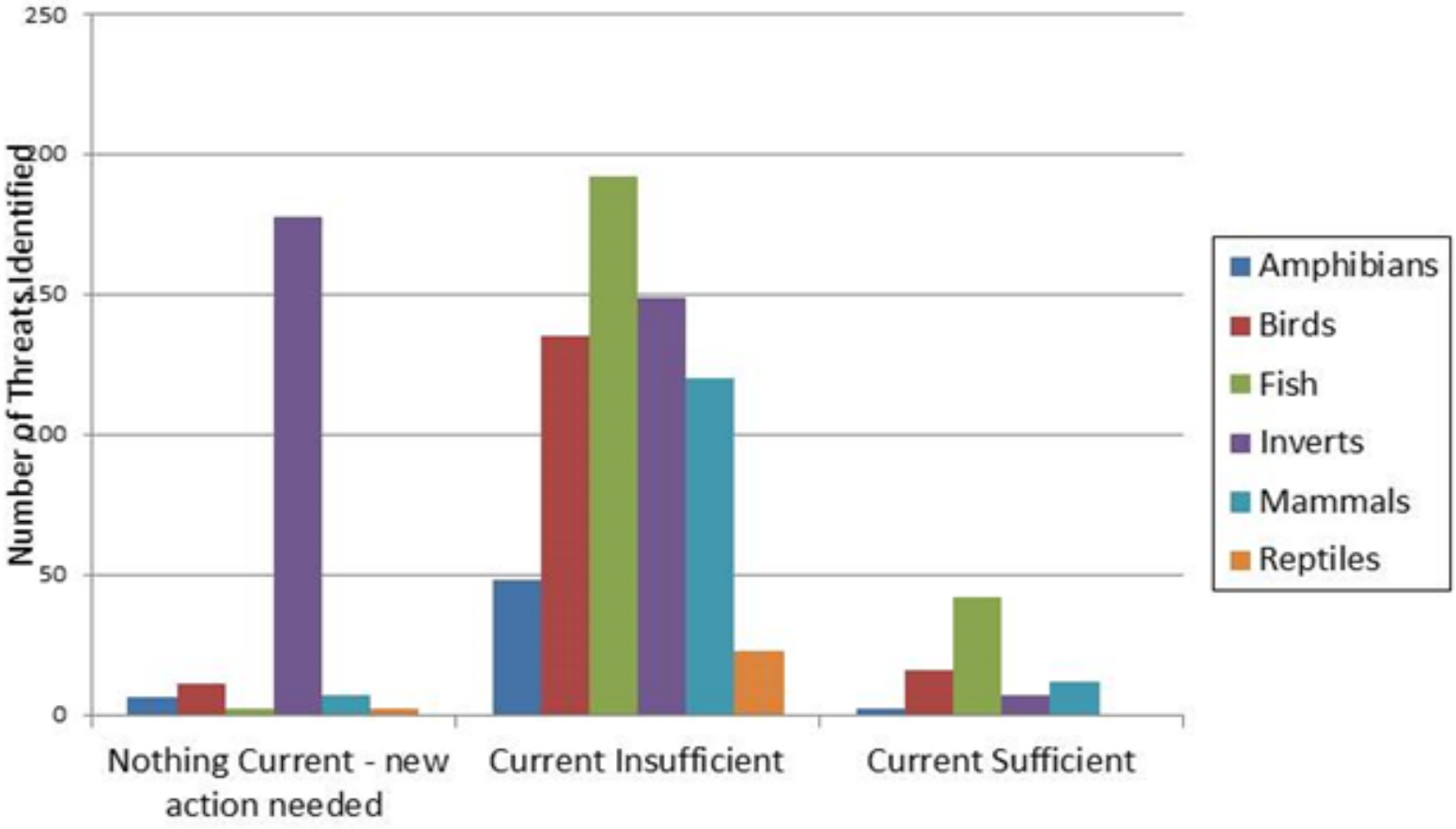
Cascade Torrent Salamander:
Conservation Threats and Actions

	STRESSOR	DESCRIPTION	ACTION NEEDED	LEVEL OF INVESTMENT	LEAD
1	Resource information collection needs	Lack of information on status and distribution.	Continue research, surveys and monitoring to understand species distribution and status.	Current insufficient	Both

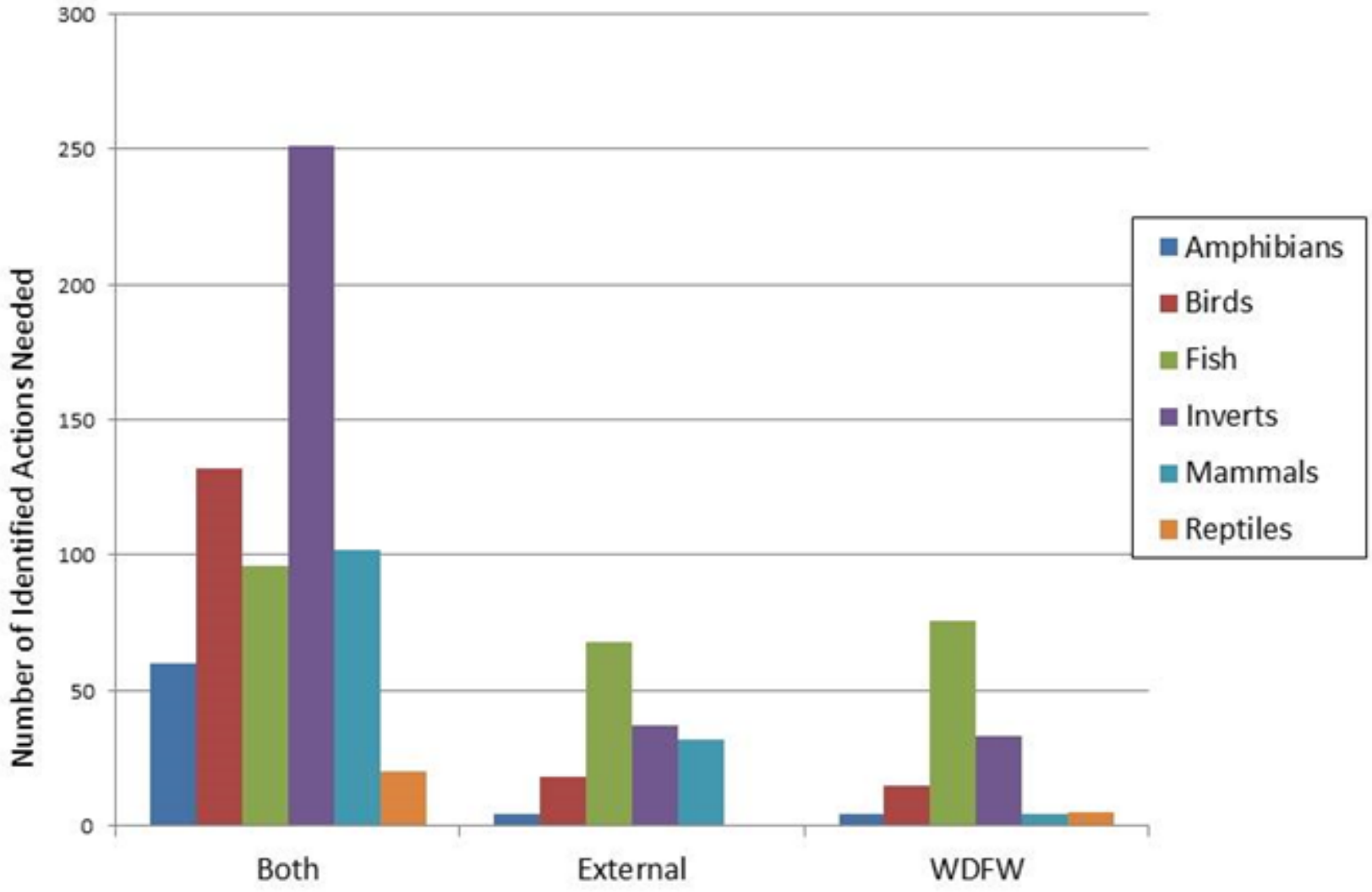
Cascade Torrent Salamander:
Conservation Threats and Actions

	STRESSOR	DESCRIPTION	ACTION NEEDED	LEVEL OF INVESTMENT	LEAD
1	Resource information collection needs	Lack of information on status and distribution.	Continue research, surveys and monitoring to understand species distribution and status.	Current insufficient	Both
2	Fish and wildlife habitat loss and degradation	Increase in water temperatures and sedimentation. This species is closely associated with cool forested streams.	Leave suitable forested buffers on occupied streams to prevent water temperature increases and sedimentation.	Current insufficient	Both
3	Climate change and severe weather	Direct mortality and loss of micro-habitat features due to stream flooding and erosion.	Leave refuge areas of intact habitat. Buffered streams in clear cuts are more likely to be impacted by extreme precipitation.	Current insufficient	Both

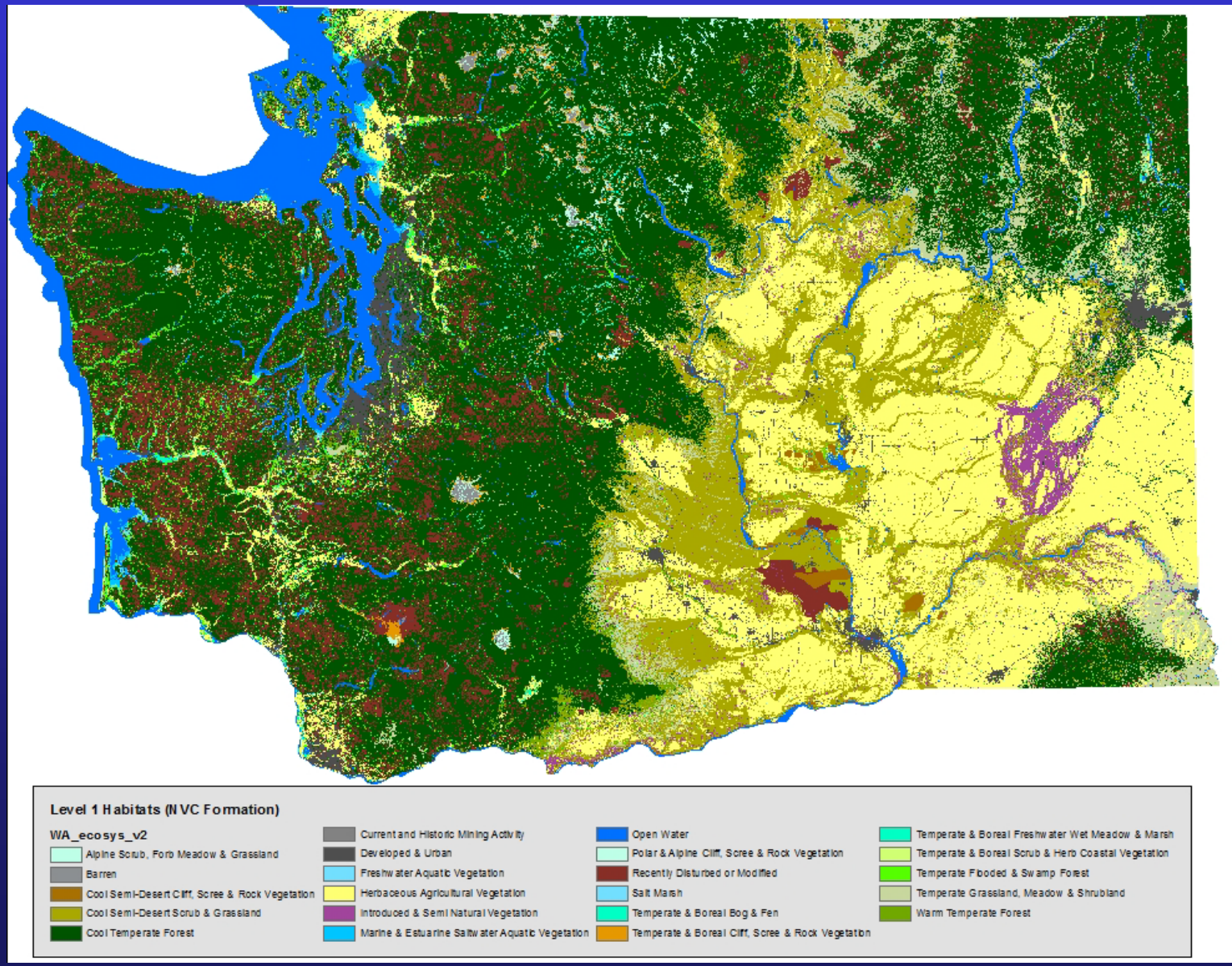
Adequacy of investment/per count of threat



Lead for Needed Actions – WDFW, External or Both



New Tools for Mapping Habitat

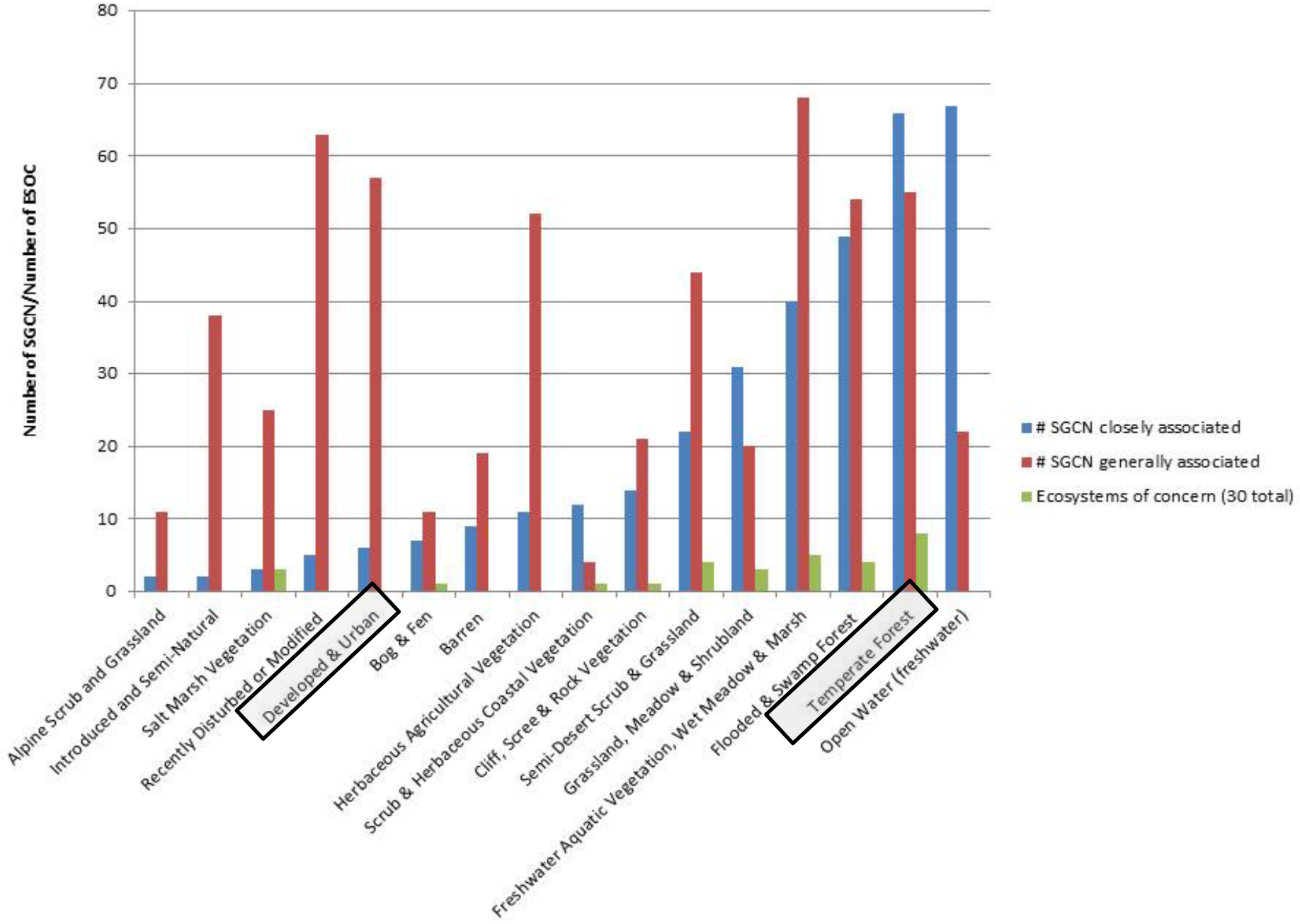


Major Habitats and Ecological Systems

VEGETATION FORMATION	TERRESTRIAL ECOLOGICAL SYSTEM
Alpine Scrub, Meadow & Grassland	North Pacific Dry and Mesic Alpine Dwarf-Shrubland, Fell-field and Meadow
	Rocky Mountain Alpine Dwarf Shrubland, Fell-field and Turf
Barren	North American Alpine Ice Field
	Unconsolidated Shore
Bog & Fen	*North Pacific Bog and Fen
	Rocky Mountain Subalpine-Montane Fen
Cliff, Scree & Rock Vegetation	Inter-Mountain Basins Active and Stabilized Dune
	Inter-Mountain Basins Cliff and Canyon
	North Pacific Active Volcanic Rock and Cinder Land
	North Pacific Alpine and Subalpine Bedrock and Scree
	North Pacific Montane Massive Bedrock, Cliff and Talus
	North Pacific Serpentine Barren
	Rocky Mountain Alpine Bedrock and Scree
	Rocky Mountain Cliff, Canyon and Massive Bedrock
Developed & Urban	Developed, High Intensity
	Developed, Low Intensity
	Developed, Medium Intensity
	Developed, Open Space
Flooded and Swamp Forest	*Columbia Basin Foothill Riparian Woodland and Shrubland
	Great Basin Foothill and Lower Montane Riparian Woodland & Shrubland
	Inter-Mountain Basins Montane Riparian Systems
	North Pacific Hardwood-Conifer Swamp
	North Pacific Lowland Riparian Forest and Shrubland
	North Pacific Montane Riparian Woodland and Shrubland
	North Pacific Shrub Swamp
	Northern Rocky Mountain Conifer Swamp
	*Northern Rocky Mountain Lower Montane Riparian Woodland & Shrubland
	Rocky Mountain Lower Montane Riparian Woodland and Shrubland

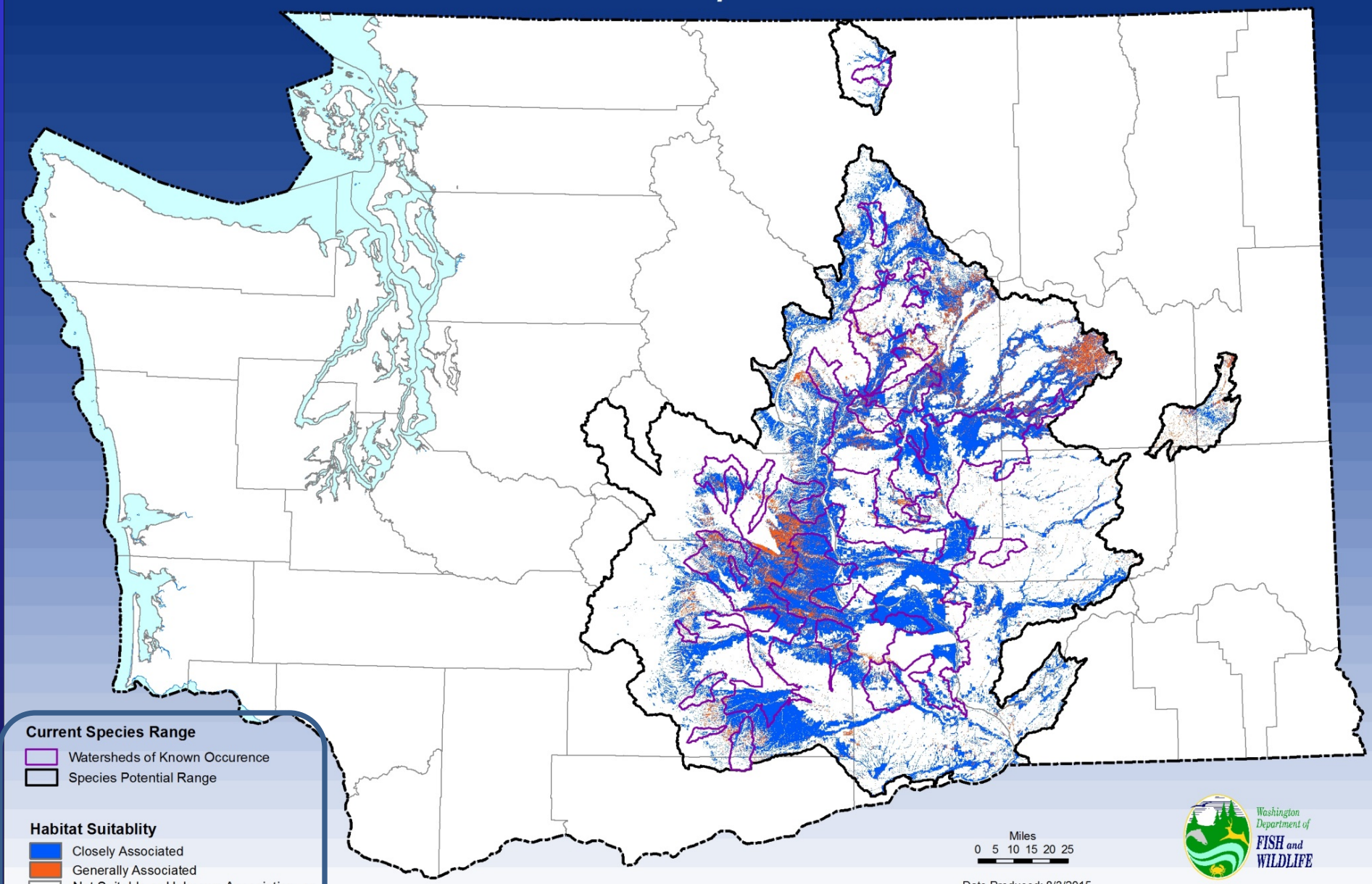
All 268 SGCN have been associated with these ecological systems.

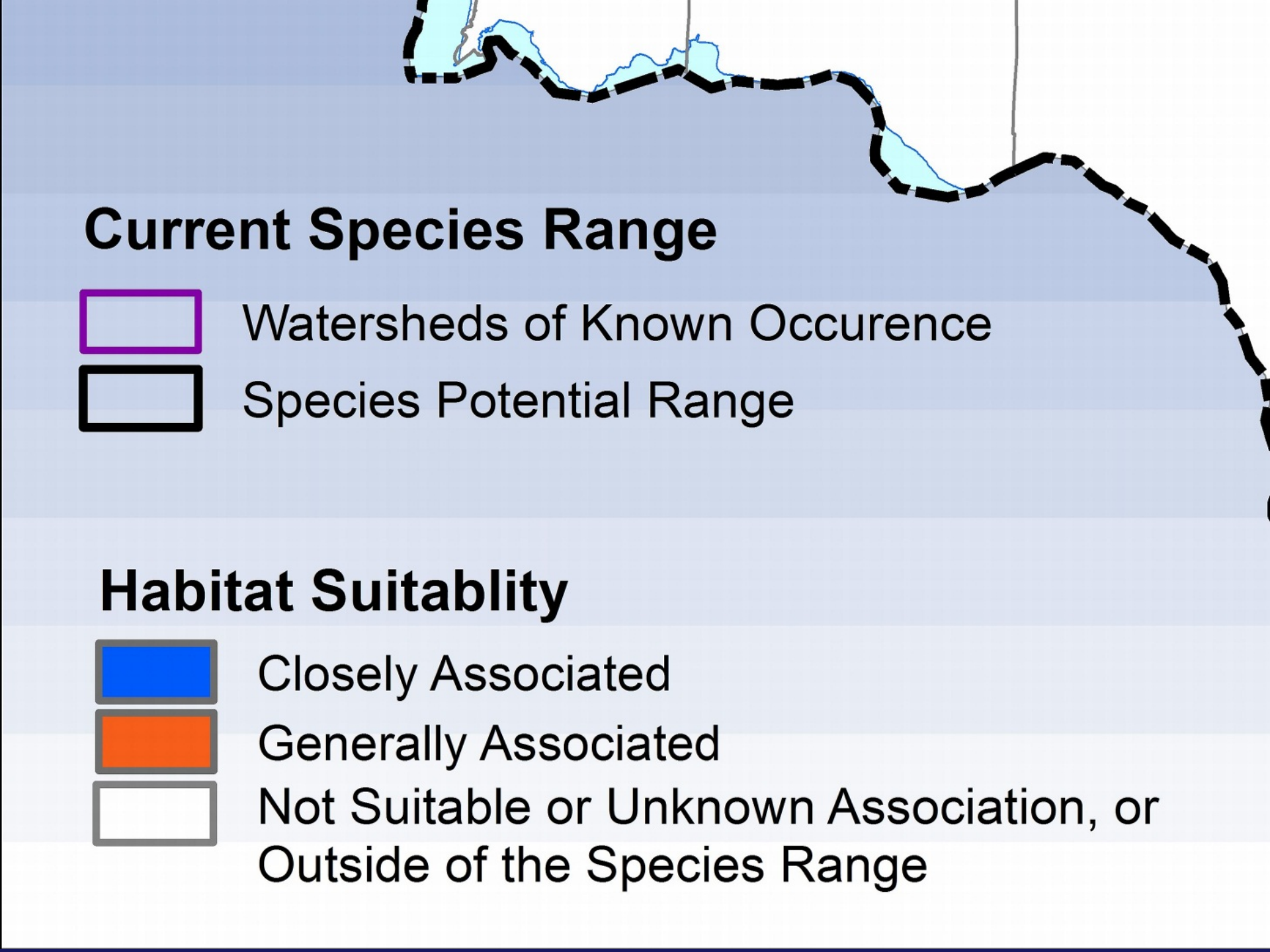
- Closely – represents primary habitat, necessary for survival
- Generally – species uses the habitat, but not essential


Number of SGCN/Number of ESOC
80
70
60
50
40
30
20
10
0
Alpine Scrub and Grassland
Introduced and Semi-Natural
Salt Marsh Vegetation
Recently Disturbed or Modified
Developed & Urban
Bog & Fen
Barren
Herbaceous Agricultural Vegetation
Scrub & Herbaceous Coastal Vegetation
Cliff, Scree & Rock Vegetation
Semi-Desert Scrub & Grassland
Grassland, Meadow & Shrubland
Freshwater Aquatic Vegetation, Wet Meadow & Marsh
Flooded & Swamp Forest
Temperate Forest
Open Water (freshwater)
SGCN closely associated
SGCN generally associated
Ecosystems of concern (30 total)

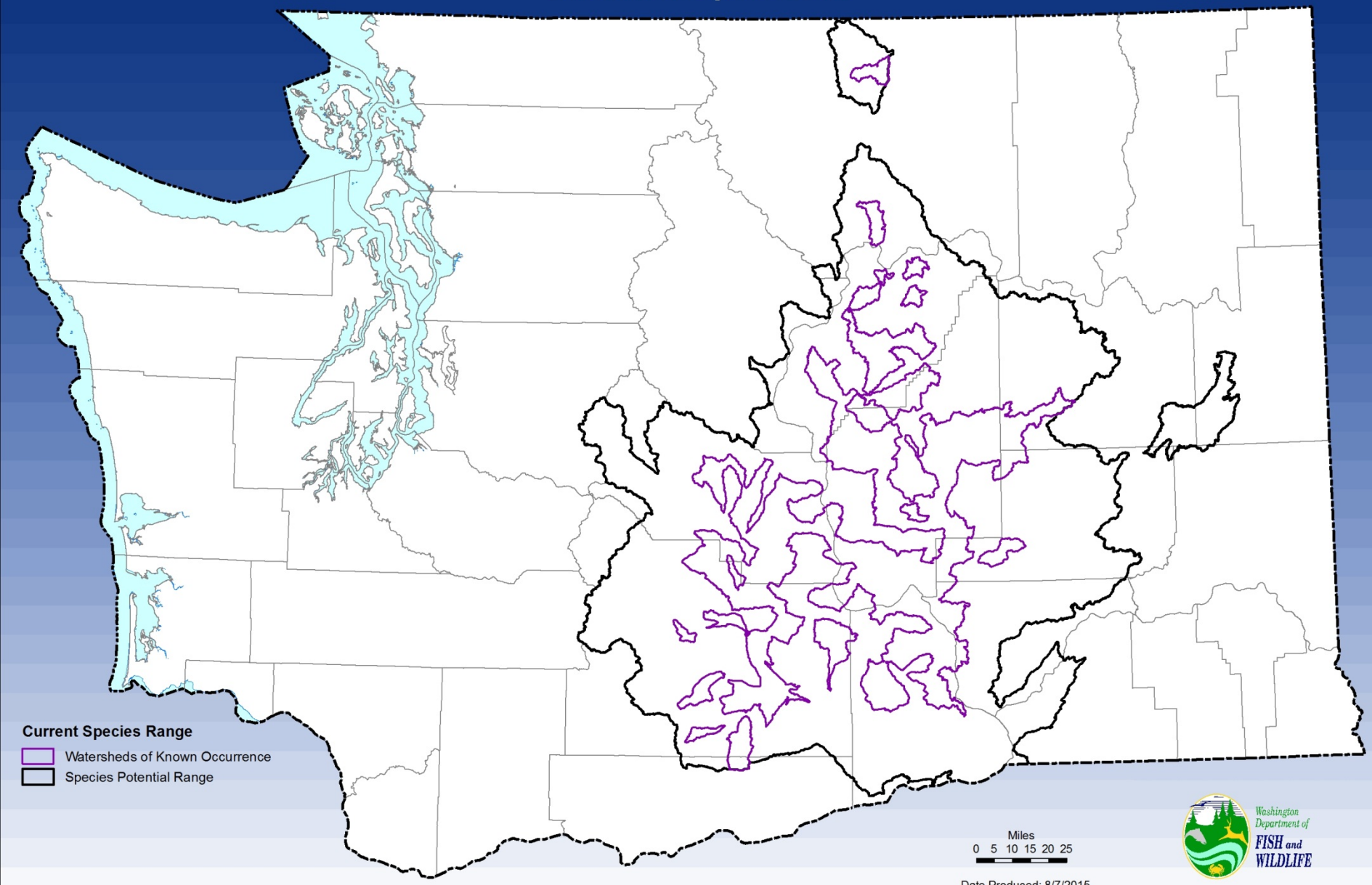
Range and Habitat Distribution Maps

Potential Range and Habitat Distribution of the Sagebrush Sparrow
Artemisiospiza Belli




Current Species Range
Watersheds of Known Occurence
Species Potential Range
Habitat Suitablity
Closely Associated
Generally Associated
Not Suitable or Unknown Association, or
Outside of the Species Range

Potential Range and Habitat Distribution of the Sagebrush Sparrow
Artemisiospiza Belli



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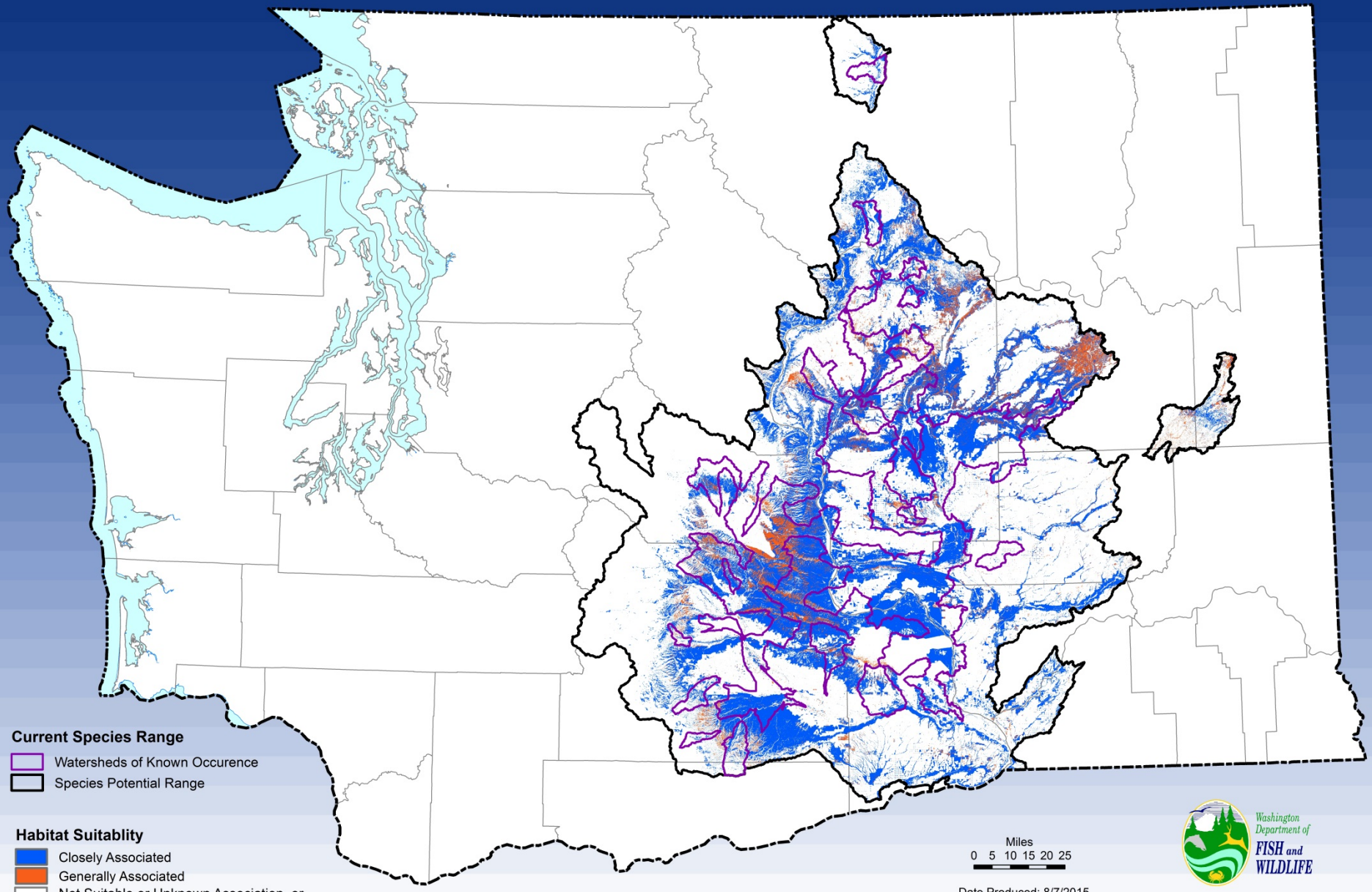
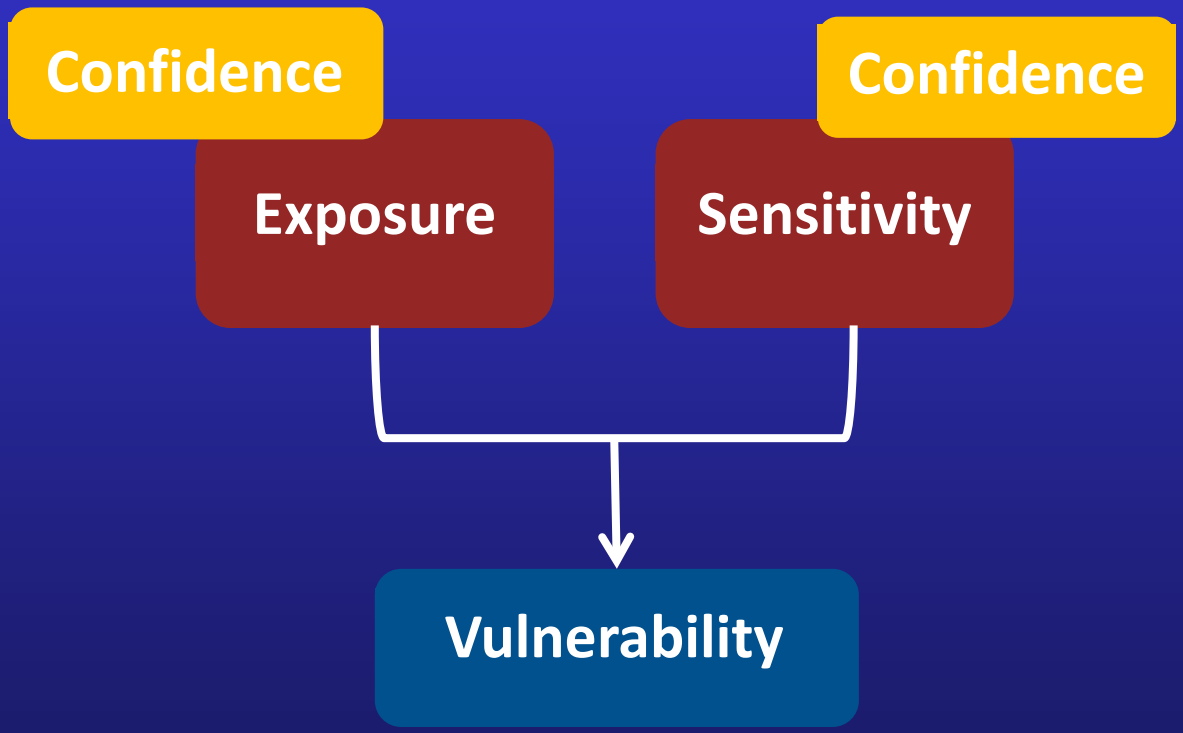


Tools for Addressing Climate Change in the State Wildlife Action Plan

Our goal was to integrate climate change into our assessment of threats and actions for SGCN

- When is climate a significant risk factor?
- If it is a significant factor, what should we do differently?

We needed to assess the vulnerability of all SGCN – baseline data



Now we have a climate vulnerability database for all 268 SGCN and 30 ecological systems.

This enables us to answer the question:

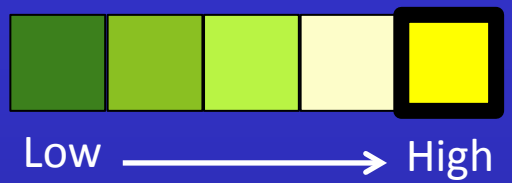
Which SGCN are most vulnerable to climate change, and why?

Example: Lynx

Vulnerability:

HIGH

High Confidence



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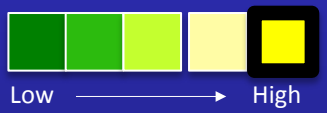
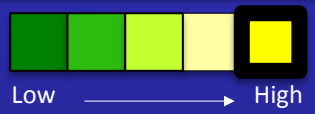


HIGH (5)

High Confidence

↑ Air temperatures
Wildfire regimes
↓ Snowpack
Earlier Snowmelt
↑ Insect/disease outbreaks

Sensitivity



HIGH (5)

High Confidence

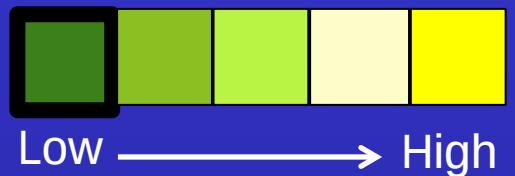
- Adapted to and dependent on cold, high elevation habitats
- Warmer temperatures and reduced snowpack may limit prey availability
- Altered fire regimes that degrade/eliminate habitat

Example: Peregrine Falcon

Vulnerability:

LOW

High Confidence



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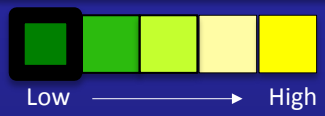
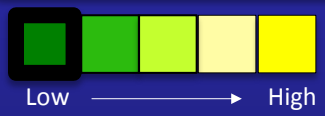


LOW (1)

High Confidence

- No specific factors identified as this is a generalist species

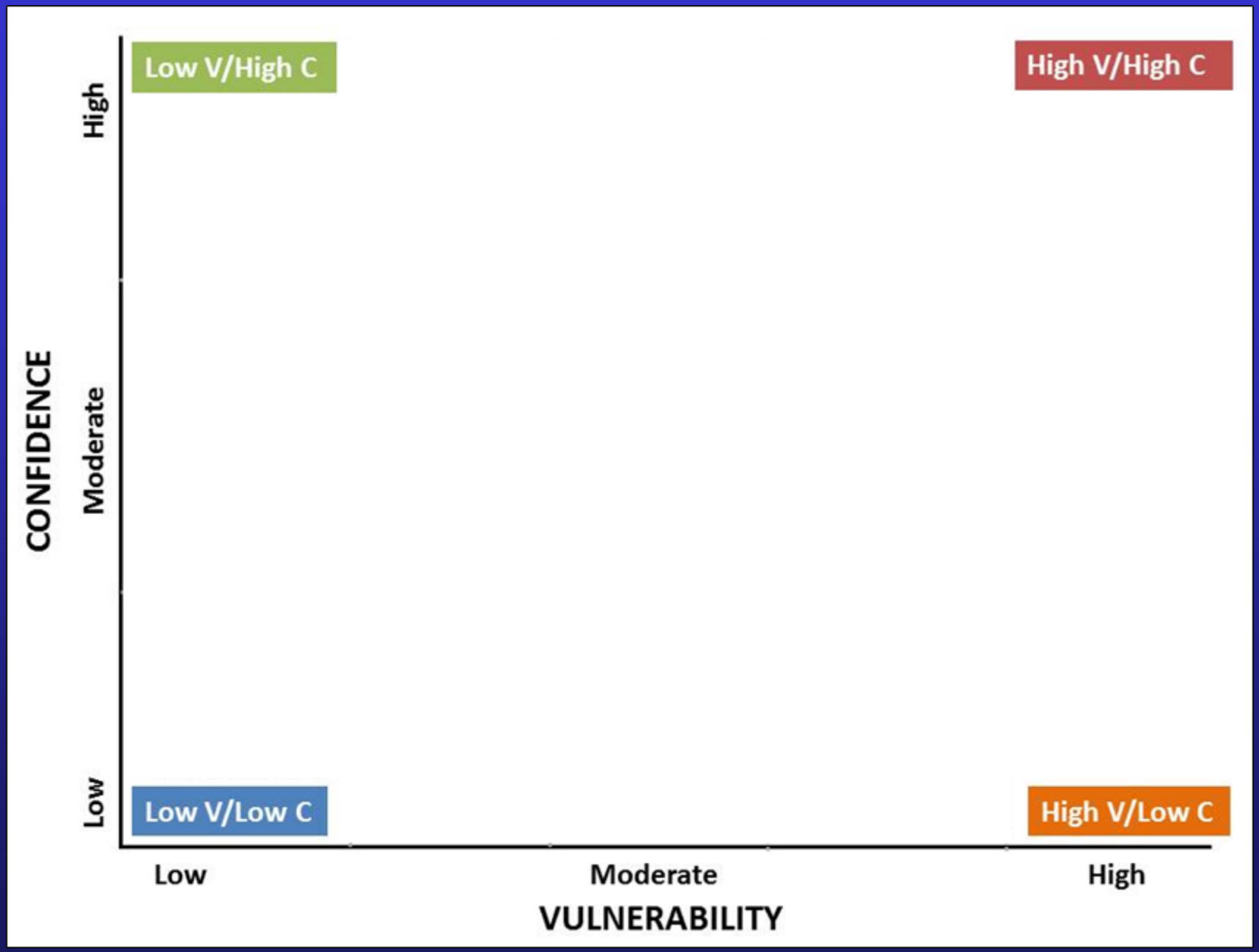
Sensitivity



LOW (1)

Moderate Confidence

- Utilizes a variety of habitat types
- Forages on a diversity of species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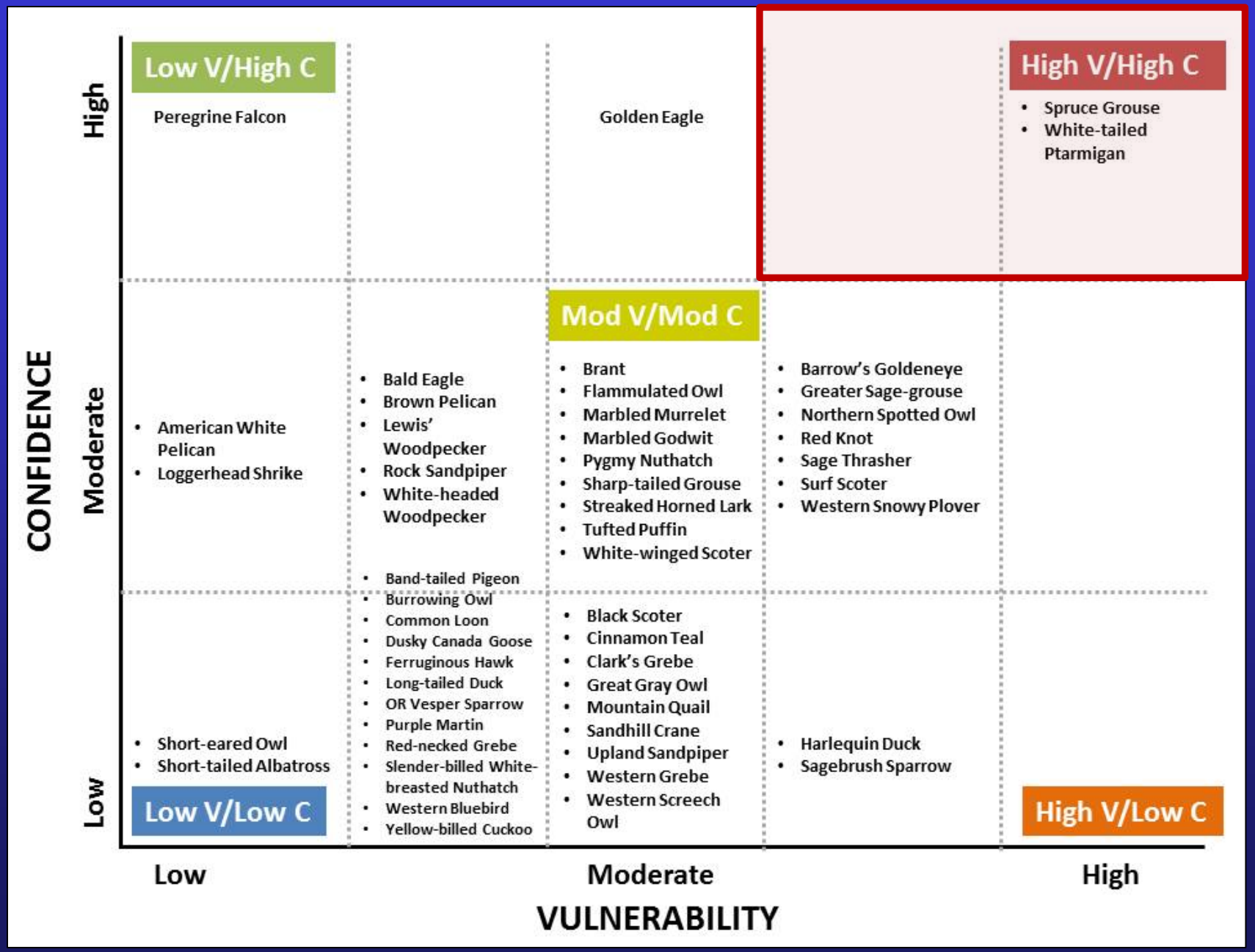
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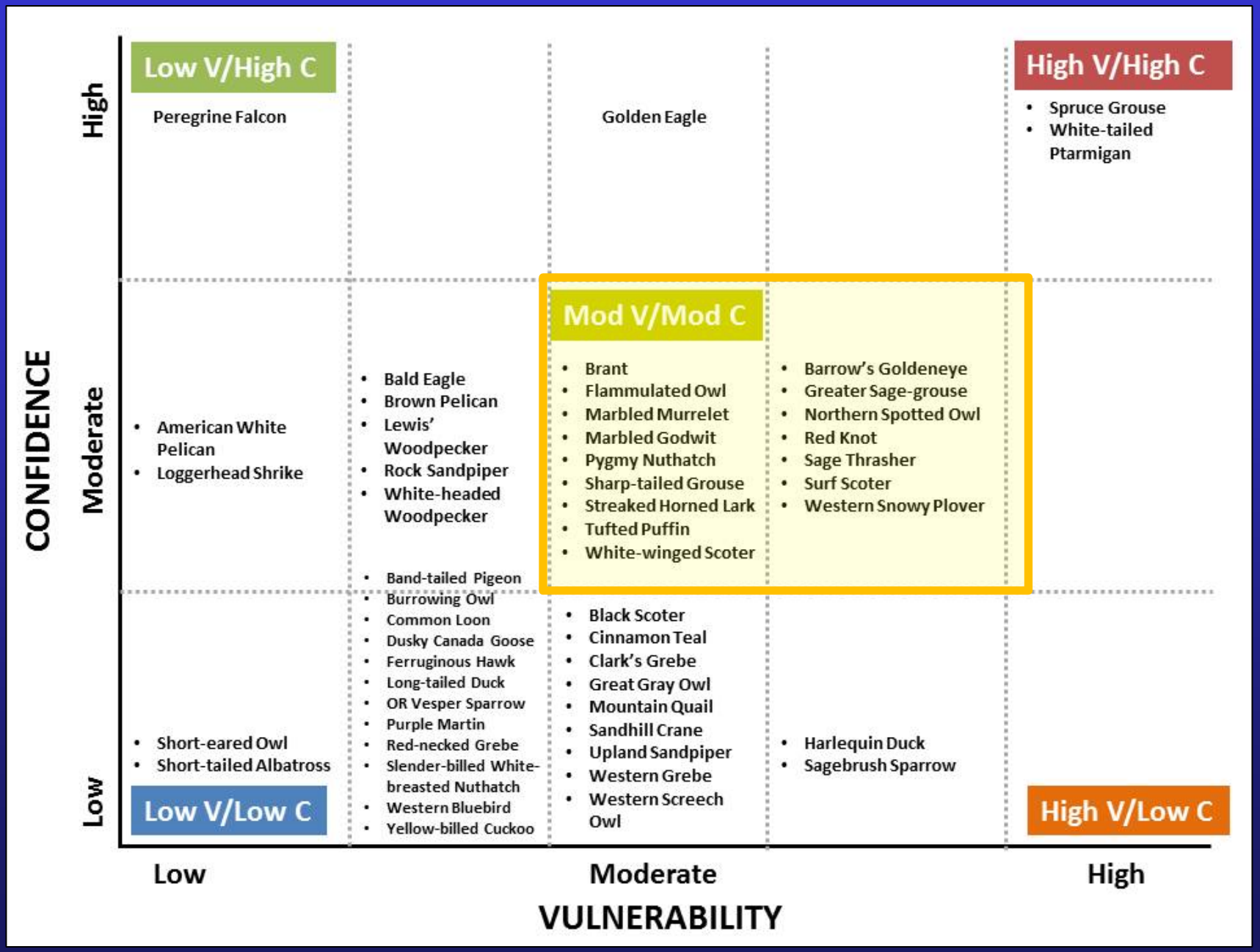
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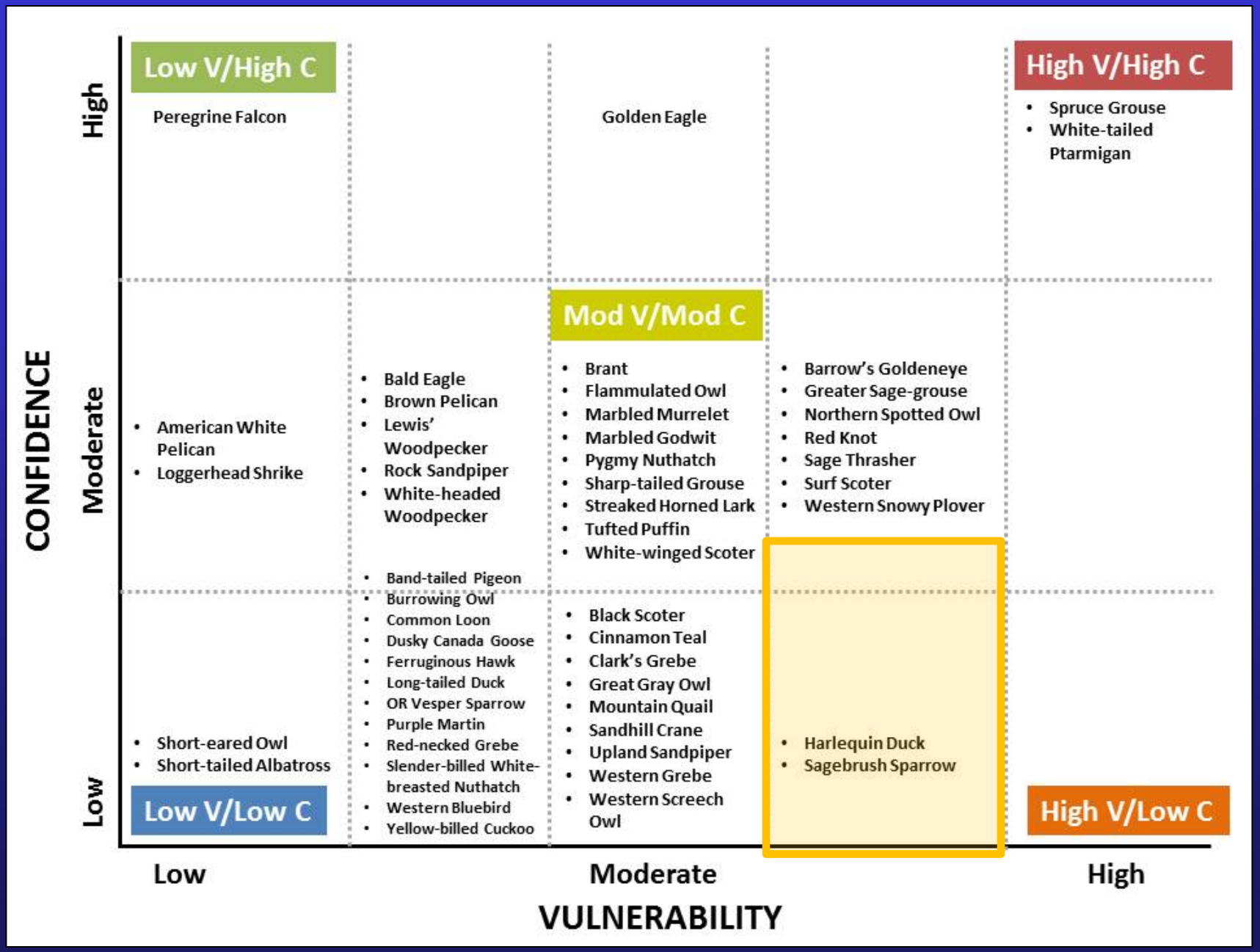
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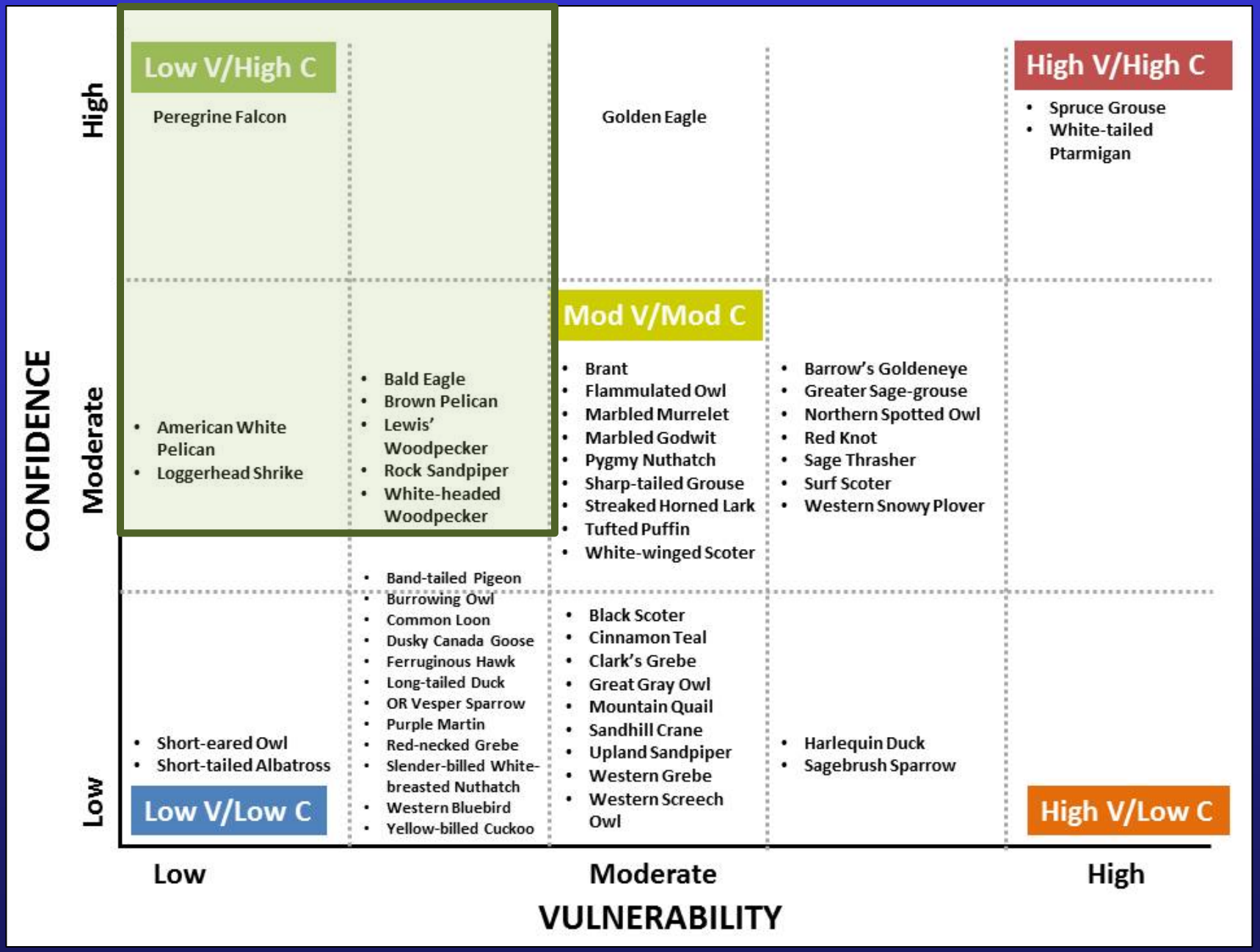
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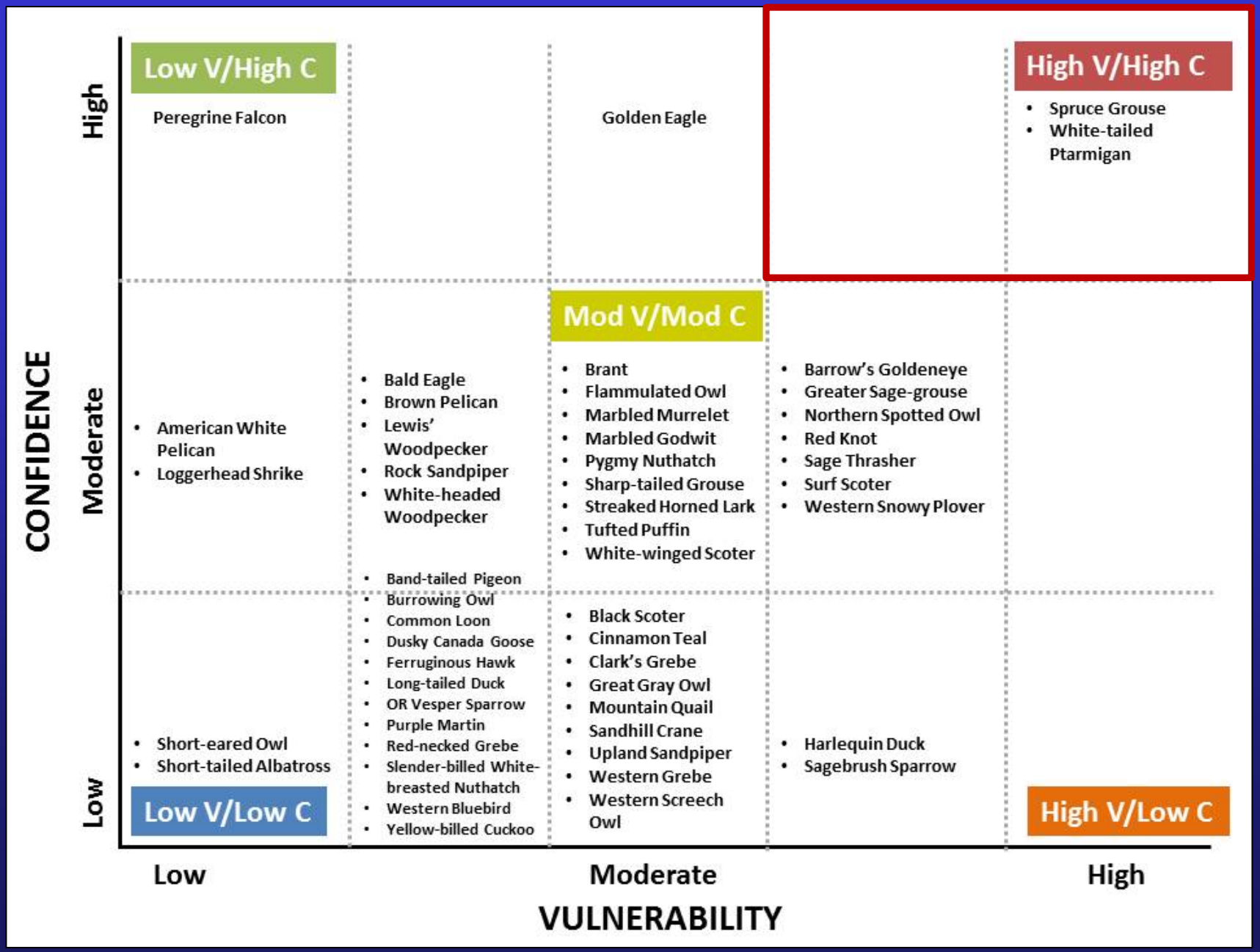
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Preliminary Climate Watch List

MAMMALS	**American Pika**
	Cascade Red Fox
	Keen's Myotis
	Killer Whale
	Lynx
	Northern Bog Lemming
	Olympic Marmot
	Pacific Marten
	Wolverine
	Woodland Caribou
BIRDS	**Spruce Grouse**
	White-tailed Ptarmigan
AMPHIBIANS	**Cascade Torrent Salamander**
	Olympic Torrent Salamander
	Tiger Salamander
FISHES	**Bull Trout Coastal Recovery Unit and Mid-Columbia Recovery Unit**
	Hood Canal Summer Chum ESU
	Lower Columbia Chinook ESU
	Lower Columbia Coho ESU
	Lower Columbia and Middle Columbia Steelhead DPS
	Pacific Cod (Salish Sea Population)
	Pacific Herring
	Puget Sound Chinook ESU
	Puget Sound Steelhead DPS
	Snake River Chinook – Spring/summer ESU
	Snake River Basin Steelhead DPS
	Surf Smelt
	Upper Columbia Spring Chinook ESU
	Upper Columbia Steelhead DPS
INVERTEBRATES	**Caddisfly ((Goereilla baumanni)** **Northern Forestfly** **Rainier Roachfly**

#3
Public Comments
What We Heard

30-day period
August-September 2015

Public Comments

Comments from external reviewers

- Majority wanted to add species to the SGCN list, including a greater focus on the role of pollinators, and to list an additional number of bumblebees as SGCN.

Our response: Reviewed data for SGCN, including in some cases, new data provided by commenters.

- Determined no changes to SGCN list were warranted.
- Added a highlight page for pollinators in discussion of invertebrates.
- Prepared a document summarizing all comments and responses (to be sent out and posted with final document approval)

What's Next?

- Awaiting approval by USFWS
- Webpage has final SWAP available – will update when approved
- Implementation Underway
  - Training staff on tools and content
  - Applying SWAP to ongoing work
  - Using in establishing priorities for species recovery actions

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