Species of Greatest Conservation Need (SGCN):
The Foundation of Maine's 2015 Wildlife Action Plan

Maine State Wildlife Action Plan
Conservation Partners Meeting
July 8, 2014

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Overview

➢ What is SGCN?

➢ Northeast Regional Context (2005)

➢ Maine's Draft (2015) SGCN Criteria & Species
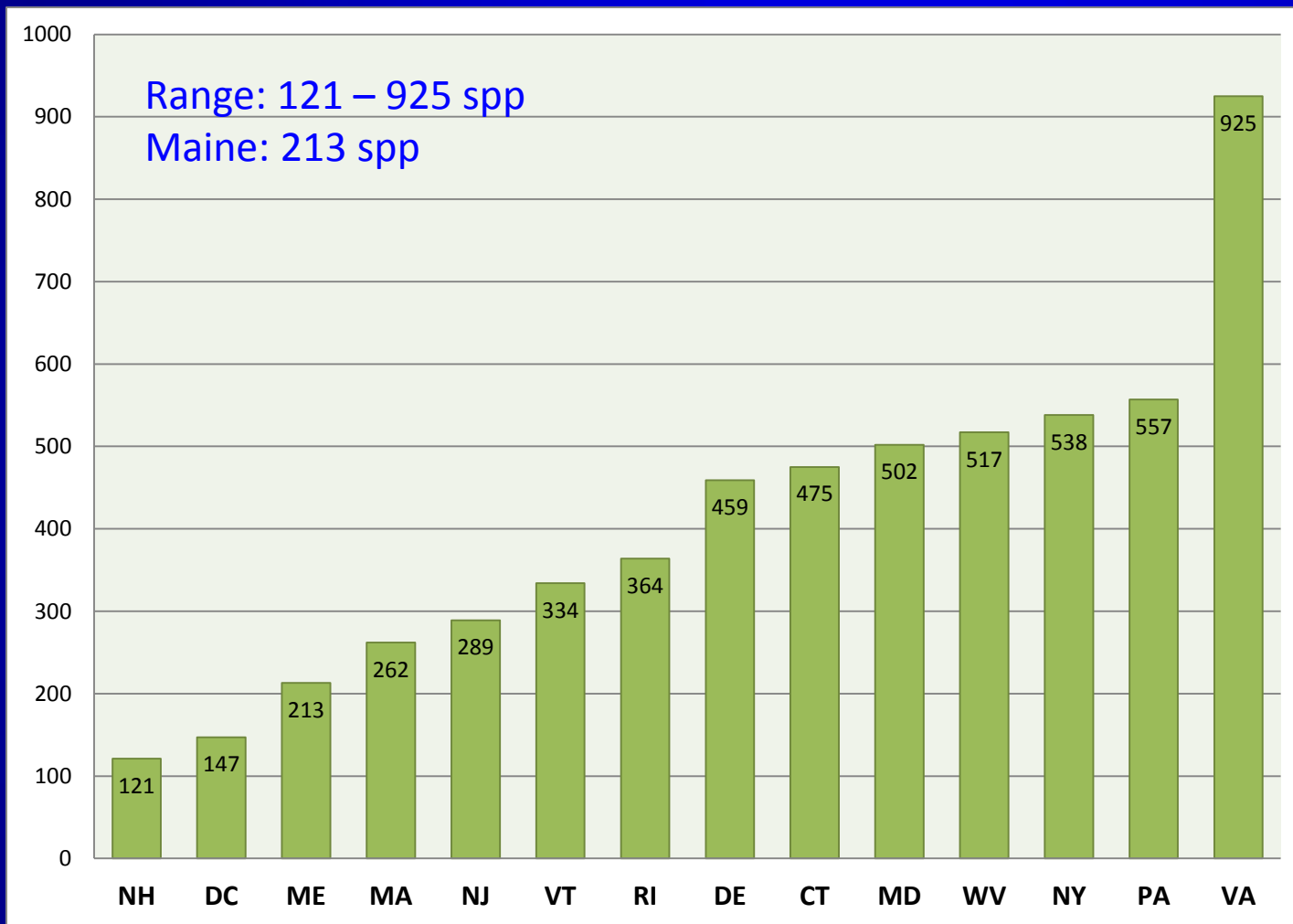
➢ Guidance for Break-out Groups

Federal Guidance: SGCN
(Wildlife Conservation and Restoration Act)

- Comprehensive Wildlife Conservation Strategy (Wildlife Action Plan)

- "...for the benefit of a diverse array of wildlife and associated habitats, including species that are not hunted or fished, to fulfill unmet needs of wildlife within the States..."

- "...with appropriate consideration to all wildlife and priority for those species with the greatest conservation need as defined by the State or Territory's program."

- "...species of wildlife, including low population and declining species as the State fish and wildlife department deems appropriate, that are indicative of the diversity and health of wildlife of the State."

Total Wildlife SGCN by Northeast State (2005): 2,395 species

Range: 121 – 925 spp
Maine: 213 spp

State	Value
NH	121
DC	147
ME	213
MA	262
NJ	289
VT	334
RI	364
DE	459
CT	475
MD	502
WV	517
NY	538
PA	557
VA	925

Taxa
Inverts: 1605
Fish: 299
Birds: 267
Mammals: 88
Amphibians: 73
Reptiles: 65

Plants: 572 (VT)

From: *Whitlock A.L. and L. L. Carpenter, 2007. A Comprehensive List of Species of Greatest Conservation Need from the Northeast SWAPs.*

Why Species Prioritization?

- **SGCN:** Species of _Greatest_ Conservation Need!

- **Triage:** "Can not afford to waste time, money, and political capital"
  (Rita Dixon, Idaho Fish & Wildlife)

- **Planning:** To prevent "random acts of conservation"
  (Elsa Haubold, USFWS Landscape Conservation Cooperatives)

- **National SWG Funds:** In 2005, 56 States & Territories identified >12,000 SGCN and in 2014 were awarded $47.9M OR <$4,000/species

- **Maine SWG Funds:** Maine has 213 SGCN and in 2014 was awarded $477,284 OR <$2,300/species

Maine 2015 SGCN Concept Criteria?

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1. Risk of Extirpation (IUCN, USESA, MESA)

2. Recent Significant Declines

3. High Regional Conservation Priority

4. Regional Endemic

5. Climate Change Vulnerability

6. Understudied Rare Taxa

7. Historical

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Maine 2015 SGCN Concept Criteria

1. Risk of Extirpation (IUCN*, USESA, MESA)

2. Recent Significant Declines*

3. High Regional Conservation Priority*

4. Regional Endemic   *Priority 1 or 2*

5. Climate Change Vulnerability*   *Priority 2*

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Other Potential SGCN Themes

1. Vulnerability – e.g. risk of extirpation, significant declines, climate change

2. Regional Responsibility – e.g. endemicity, proportion of range in Northeast

3. Data Deficient – e.g. rare understudied, historical

Other Potential SGCN Themes?

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2. Regional Responsibility – e.g. endemicity, proportion of range in Northeast

3. Data Deficient – e.g. rare understudied, historical

4. Ecological Function -- e.g. keystone or indicator species

5. Taxonomic Distinctiveness -- e.g. RTD = $1/\sqrt{(family \times genus \times species)}$

6. Cultural Significance – e.g. flagship species

7. Economic Significance – e.g. game & commercial species

1. Risk of Extirpation (P1 or P2)

➢ **Global Risk:** International Union for the Conservation of Nature (IUCN)*
   - Critically Endangered (CR)
   - Endangered (EN)
   - Vulnerable (VU)

➢ **National Risk:** US Endangered Species Act (USESA)
   - Endangered or Threatened
   - Candidate or Proposed

➢ **State Risk:** Maine Endangered Species Act (MESA)
   - Endangered or Threatened
   - Proposed (2014)

Photos:
Eric Hynes
Jonathan Mays
E-nature-Simpson

2. Recent Significant Declines * (P1 or P2)

➤ Likely local extinction and/or significant range contraction

➤ Statewide or Regional Scale

➤ Recent
  - Priority 1: <15 yrs
  - Priority 2: <30 yrs

➤ *Examples:* Wood Thrush, Cliff Swallow, Great Blue Heron, Little Brown Bat, New England Cottontail, Rusty-patched Bumble Bee, Monarch

Photos:
Johanna James-Heinz
John Depue
Jonathan Mays
Brian Small

3. Regional Endemic* (P1 or P2)

➤ Global geographic range at least 90% contained within the area defined by USFWS Region 5, the Canadian Maritimes, and southeastern Quebec

➤ *Examples:* Barrow's Goldeneye, Purple Sandpiper, Bicknell's Thrush, New England Cottontail, Bog Elfin, Tomah and Roaring Brook Mayflies, and Scarlet Bluet

Photos:
Tim Bowman
Jonathan Mays
Ron Butler
Kelly Boland

4. High Regional Conservation Priority (P1 or P2)

Identified as a high regional or global species of conservation concern by one of the following authorities:

- Committee on the Status of Endangered Wildlife in Canada (2013)*
- Northeast Endangered Species and Wildlife Diversity Technical Committee (1999)
- NEAFWA Northeast Regional Synthesis (2013)*
- NatureServe (2014)
- Partners In Flight (2012)
- North American Waterbird Conservation Plan (2002 & 2006)
- North Atlantic Regional Shorebird Plan (2000)
- US Shorebird Conservation Plan (2004)
- Birds of Conservation Concern (2008)*
- Northeast Partners in Amphibian & Reptile Conservation (2010)*
- American Fisheries Society (2011)
- Atlantic States Marine Fisheries Commission Stock Assessments (2012)*
- Eastern Brook Trout Joint Venture (2005)*
- Northeast Odonate Assessment (2014)*

Natural Capital Initiative *at Manomet*   March 2010 NCI-2010-02

Natural Capital Science Report

CLIMATE CHANGE AND BIODIVERSITY IN MAINE:

A CLIMATE CHANGE EXPOSURE SUMMARY FOR PARTICIPANTS OF THE MAINE CLIMATE CHANGE SPECIES VULNERABILITY ASSESSMENT

Andrew Whitman[1]
Barbara Vickery[2]
Phillip deMaynadier[3]
Sally Stockwell[4]
Steve Walker[5]
Andrew Cutko[6]
Robert Houston[7]

[1]Manomet Center for Conservation Sciences, Brunswick, ME
[2]The Nature Conservancy, Brunswick, ME
[3]Department of Inland Fisheries and Wildlife, Bangor, ME
[4]Maine Audubon Society, Falmouth, ME
[5]Department of Inland Fisheries and Wildlife,, Augusta, ME
[6]Maine natural Areas program, Augusta, ME
[7]US Fish and Wildlife Service, Falmouth, ME

➢ Whitman et al. 2013. Climate Change and Biodiversity in Maine. Manomet Center for Conservation Sciences Report.

➢ High Vulnerability (Moderate-High Confidence)

➢ 69 animals and 89 plants

➢ *Examples:* Arctic Charr, Mink Frog, Common Loon, Spruce Grouse, Bicknell's Thrush, Canada Lynx, Salt Marsh Tiger Beetle

J. Mays

K. Woodberry

6. Understudied Rare Taxa (P2)

➢ Recently documented and/or poorly surveyed

➢ Rare (<5-10 occurrences)

➢ Specialized habitat or other notable vulnerability

➢ *Examples:* Purple Martin, Long-eared Owl, Blacknose Shiner, Lake Trout, Comet Darner, Juniper Hairstreak, Eastern Buckmoth, Yellow Bumble Bee, 15 Mayfly spp.

Photos:
Jim Paris
Blair Nikula
MC Thomas
Thomas Wilson

- ➢ Species currently listed as state (SH) or global (GH) Historical by MDIFW or NatureServe

- ➢ Reasonable probability of rediscovery with further survey

- ➢ *Examples:* American Bumble Bee, Ashton's Cuckoo Bumble Bee, Pine Devil Moth, Graceful Clearwing Moth, Early Hairstreak Butterfly
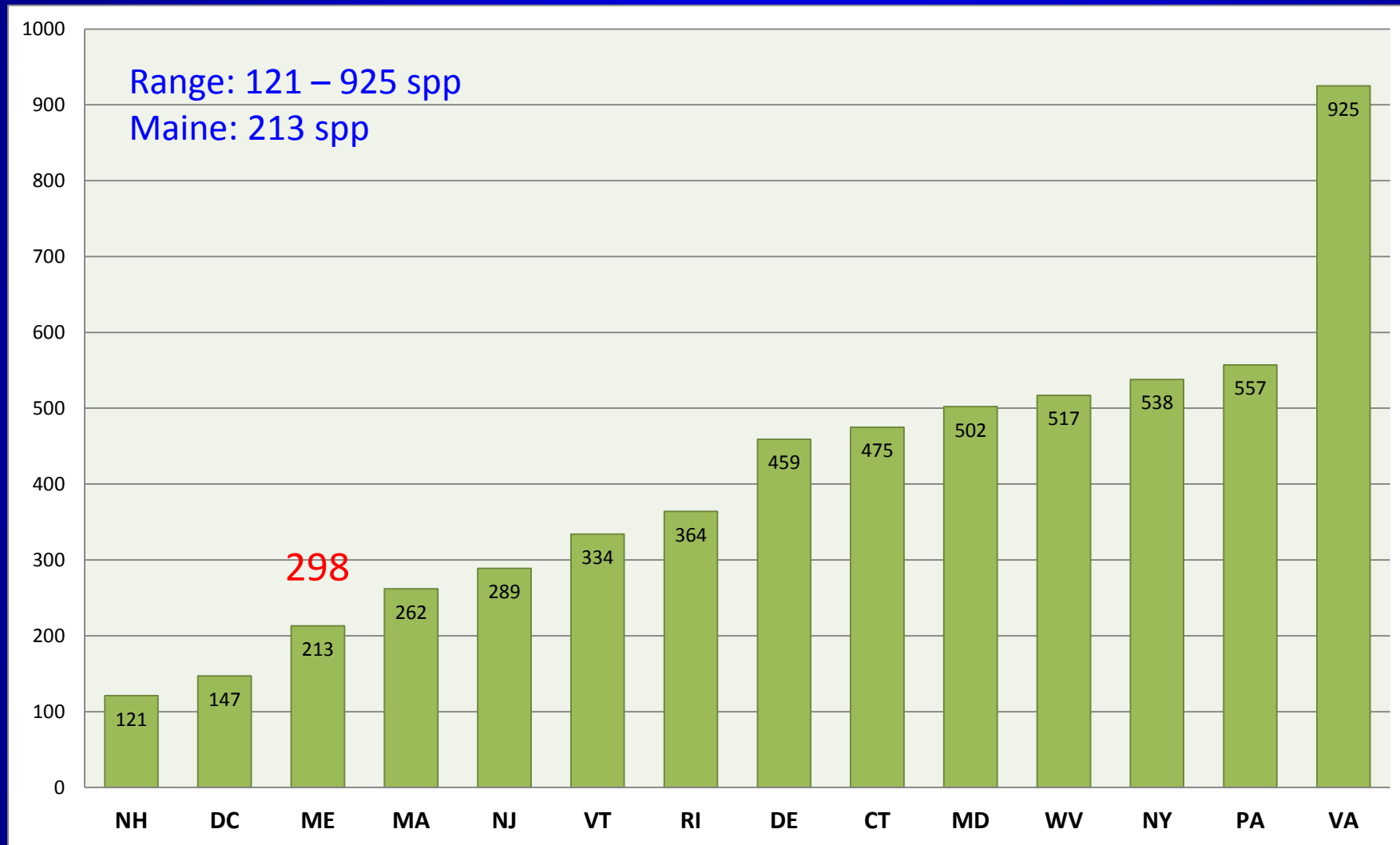
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Maine Species Status Database
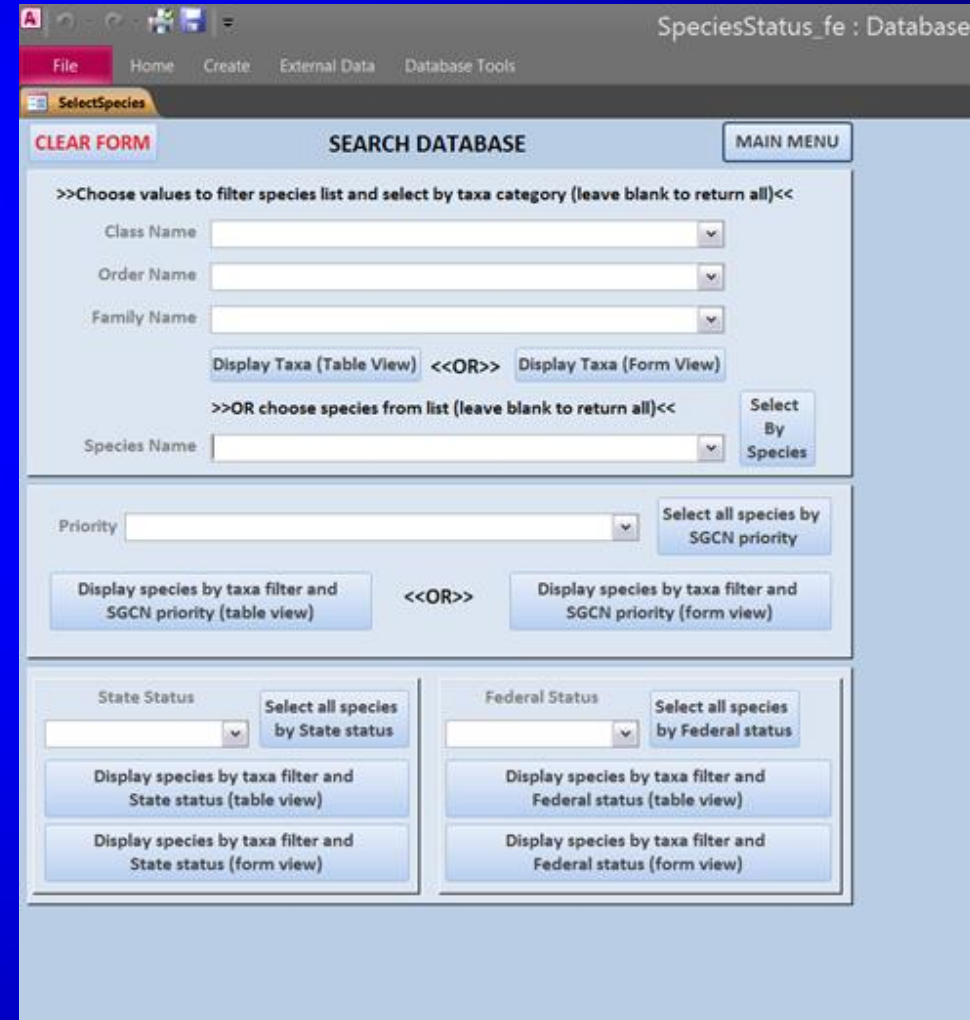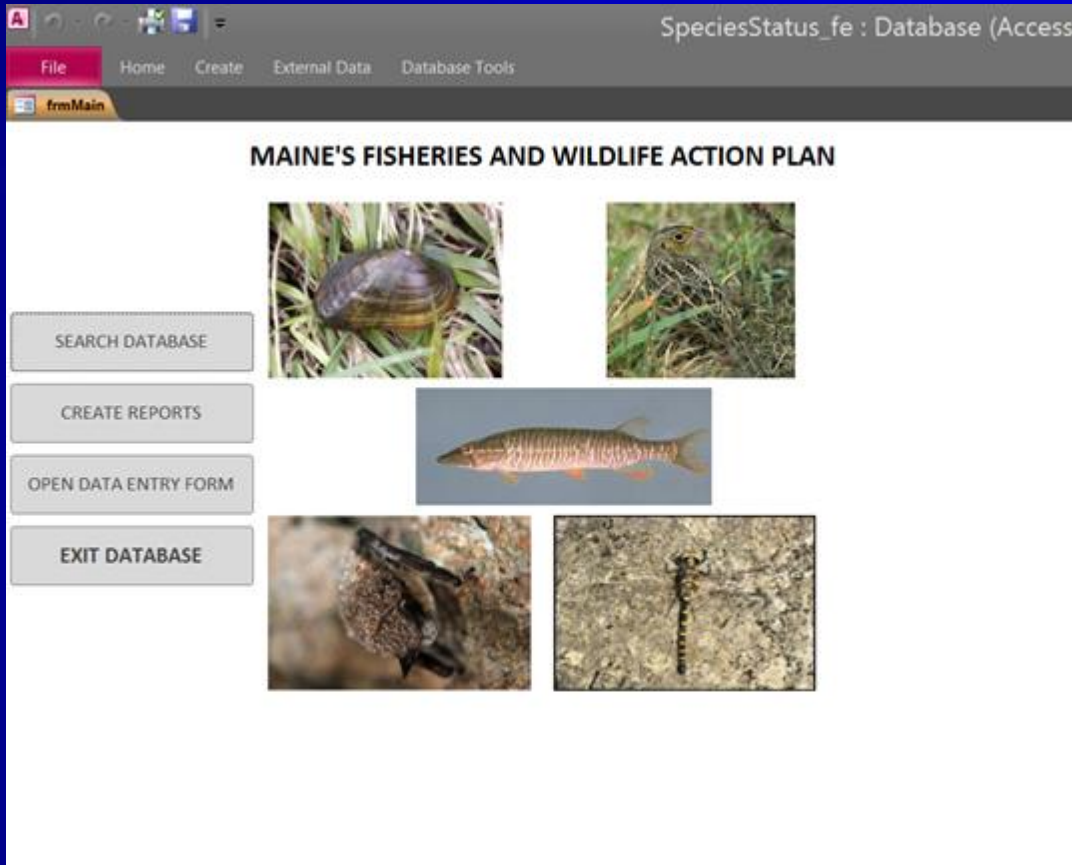
- 987 wildlife species
- 110 relational tables (~45 for SGCN)
- ME Status: E, T, SC, H, SGCN, Exotic, EXT

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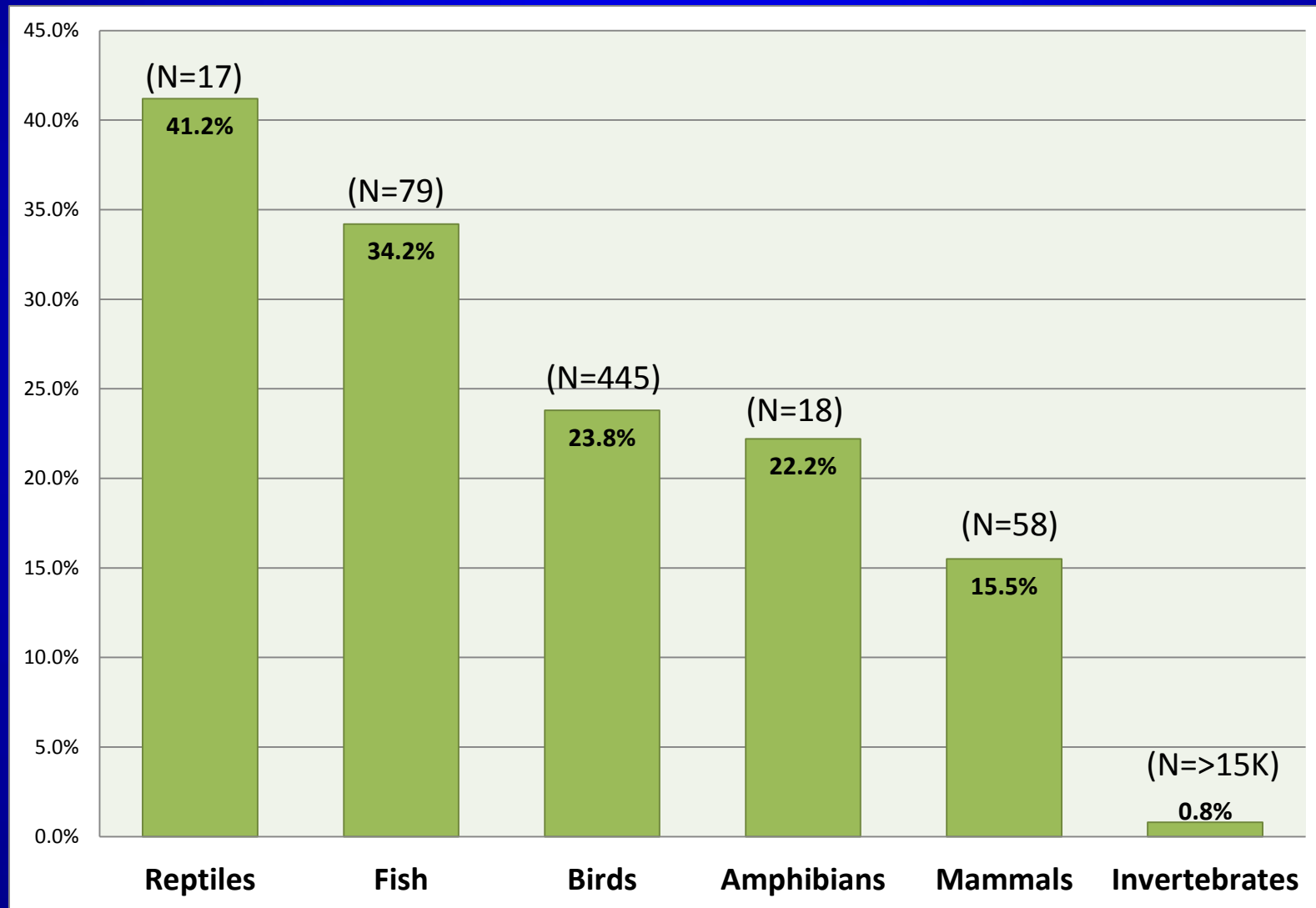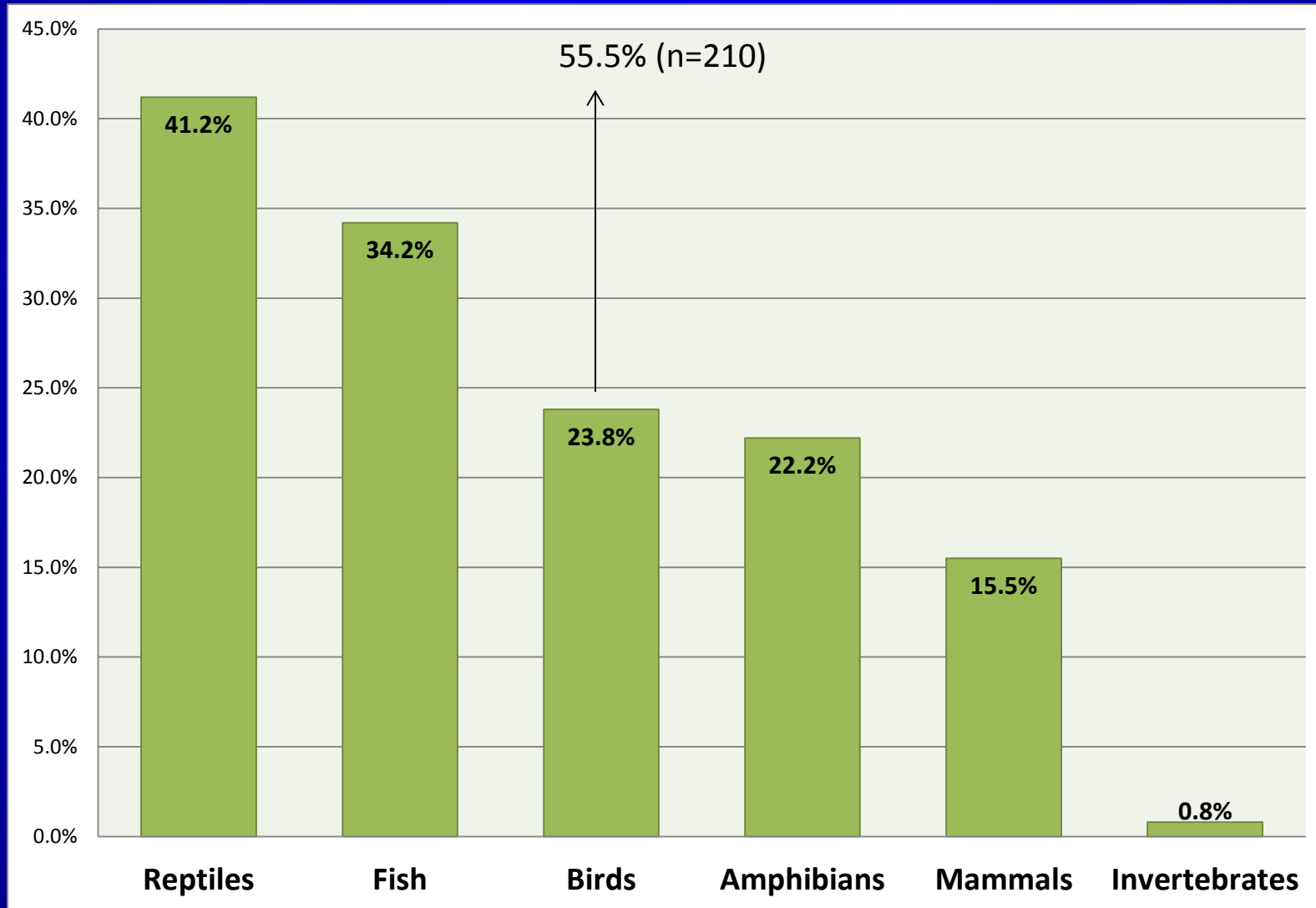
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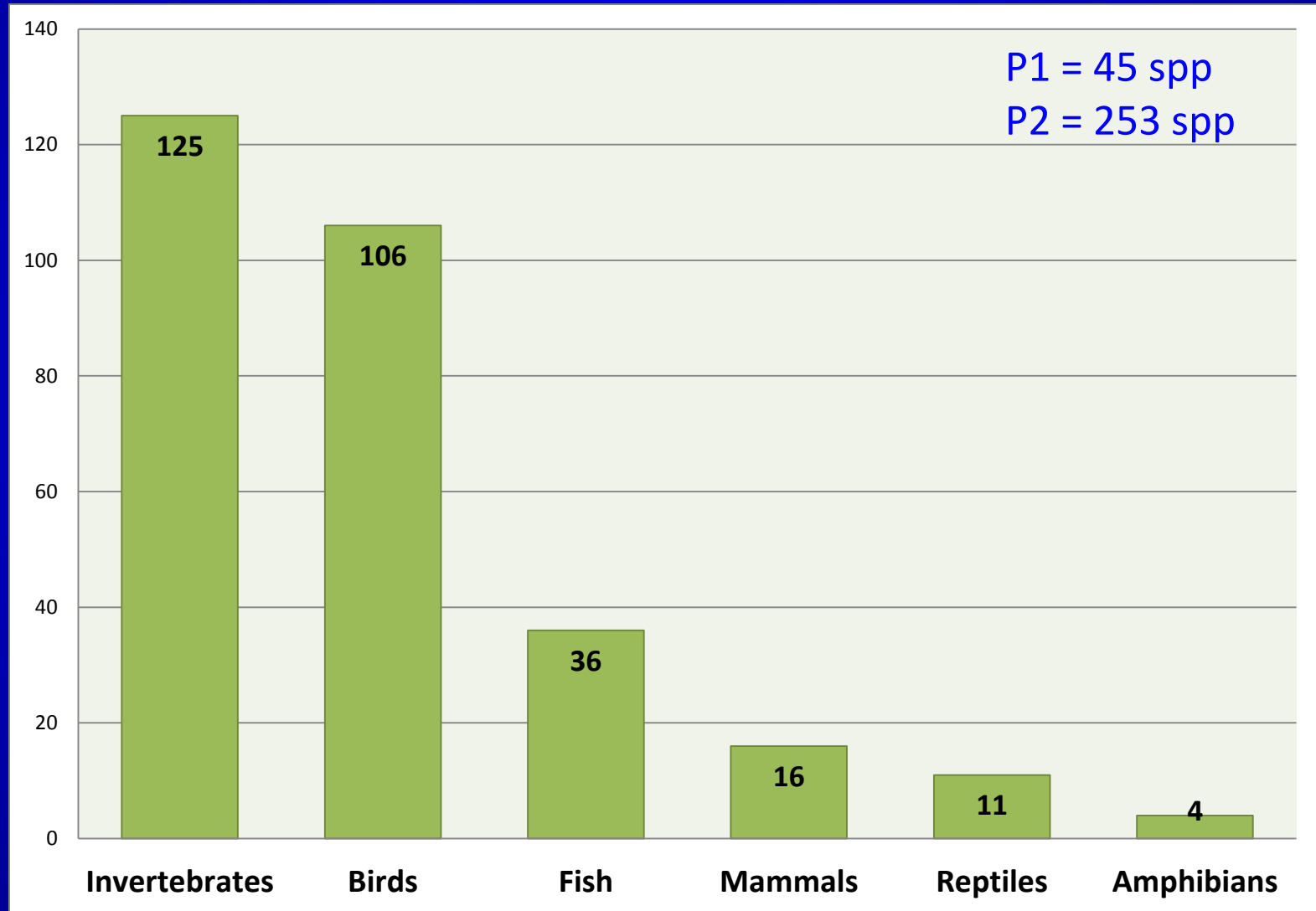
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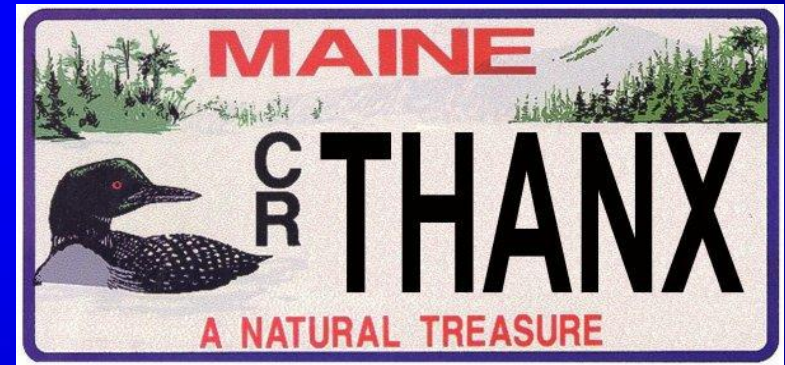Percentage Maine Wildlife Draft SGCN (2015): 298 species

MDIFW Nongame Funding

SWG (2002) and ESA (1977)

Chickadee Checkoff (1983)

Loon License Plate (1993)

Questions? Comments?

Discussion Points for Taxa Groups

1. **SGCN Criteria:**

   a. Are the themes for SGCN prioritization appropriate and comprehensive?

   b. Is our SGCN rubric sufficiently clear and science-based?

   c. Are there any important taxa conservation assessments that we missed?

   d. Are the SGCN subcriteria or metrics adjusted to the right level?

2. **SGCN Species:**

   a. Are there any higher taxa missing with comprehensive information for assessing distribution and status in Maine?

   b. Any questions about species omissions or commissions based on your professional knowledge?

   c. Did we strike the right balance: species list length and species prioritization?