

Sustainability Indicator E.c.

Forest Plant and Animals Species At Risk

Strategy E of the Forestry Program For Oregon

Contribute to the conservation of diverse native plant and animal populations and their habitats in Oregon's forests

Indicator E.c. To provide an active metric that we could use to track and evaluate trends in the number of species at risk of extirpation and extinction.

Objective: Native species persist in Oregon's forests, or as few as possible species are lost from Oregon's forests.

Why this? We explored the possibility of different metrics such as:

Number of forest species in each federal ESA status ranking

- U.S. Fish and Wildlife Service

Number of forest species in Oregon Biodiversity Information Center Lists 1 and 2

- Oregon Biodiversity Information Center

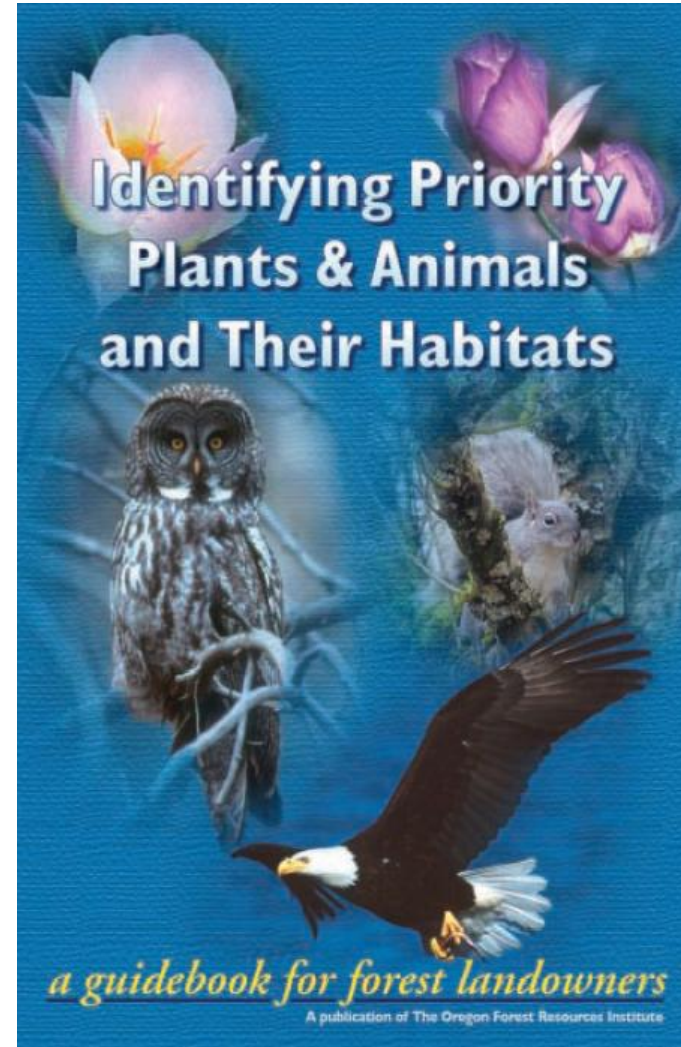
Historic and current distribution of forest species

- Oregon Biodiversity Information Center



Questions Addressed for Indicator

- What is a forest Species?
 - A forest species is any species that occurs primarily within a forested landscape
- How do we define At-Risk?
 - NatureServe/Natural Heritage Ranks



Approximate Total At-Risk Species by Group

- Vascular Plants (flowering plants, ferns, and conifers) - 5.1% (180/3500)
- Mammals - 7.3 % (11/150)
- Birds - 5.6 % (17/305)
- Reptiles and Amphibians - 23.4 % (15/64)
- Fish - 25 % (19/76)
- Invertebrates – Unknown total number of species. 56 species considered at risk.

The Oregon Conservation Strategy has identified "species of greatest conservation need." The Conservation Strategy also uses information on species distribution and abundance produced by the Oregon Natural Heritage Information Center.

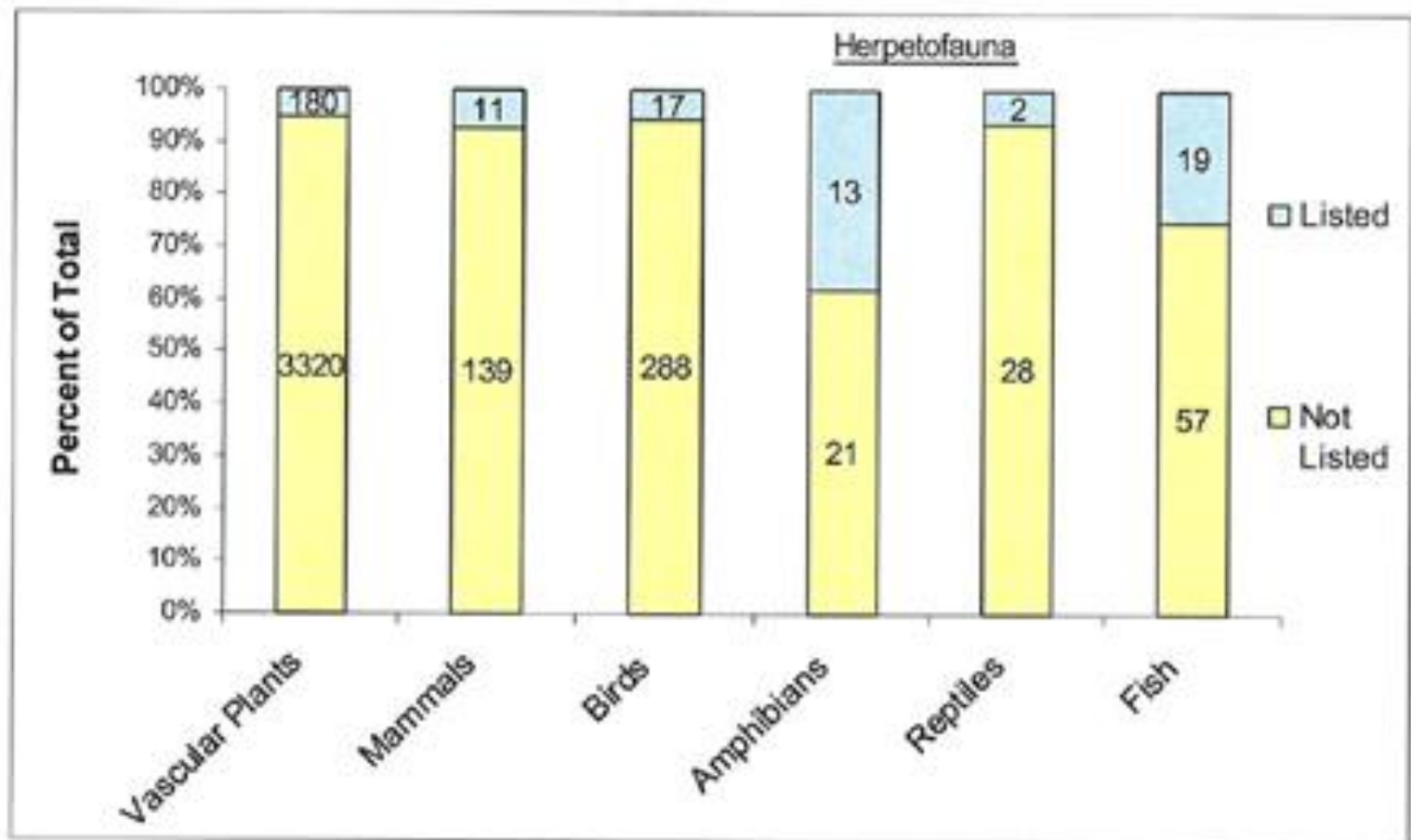
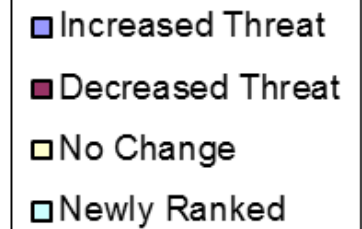
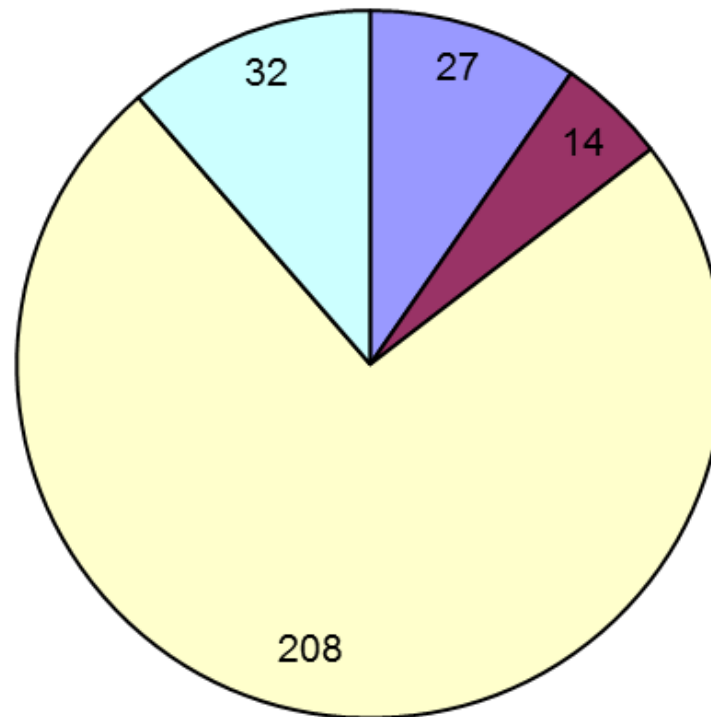


Figure 8. The relative number of ESA or Oregon Natural Heritage Information Center List 1 and List 2 forest species at risk expressed as a percent of the estimated total number of species. Vascular plants does not include hybrids and exotics. The total number of invertebrate species is unknown.

2004 - 2010 Data

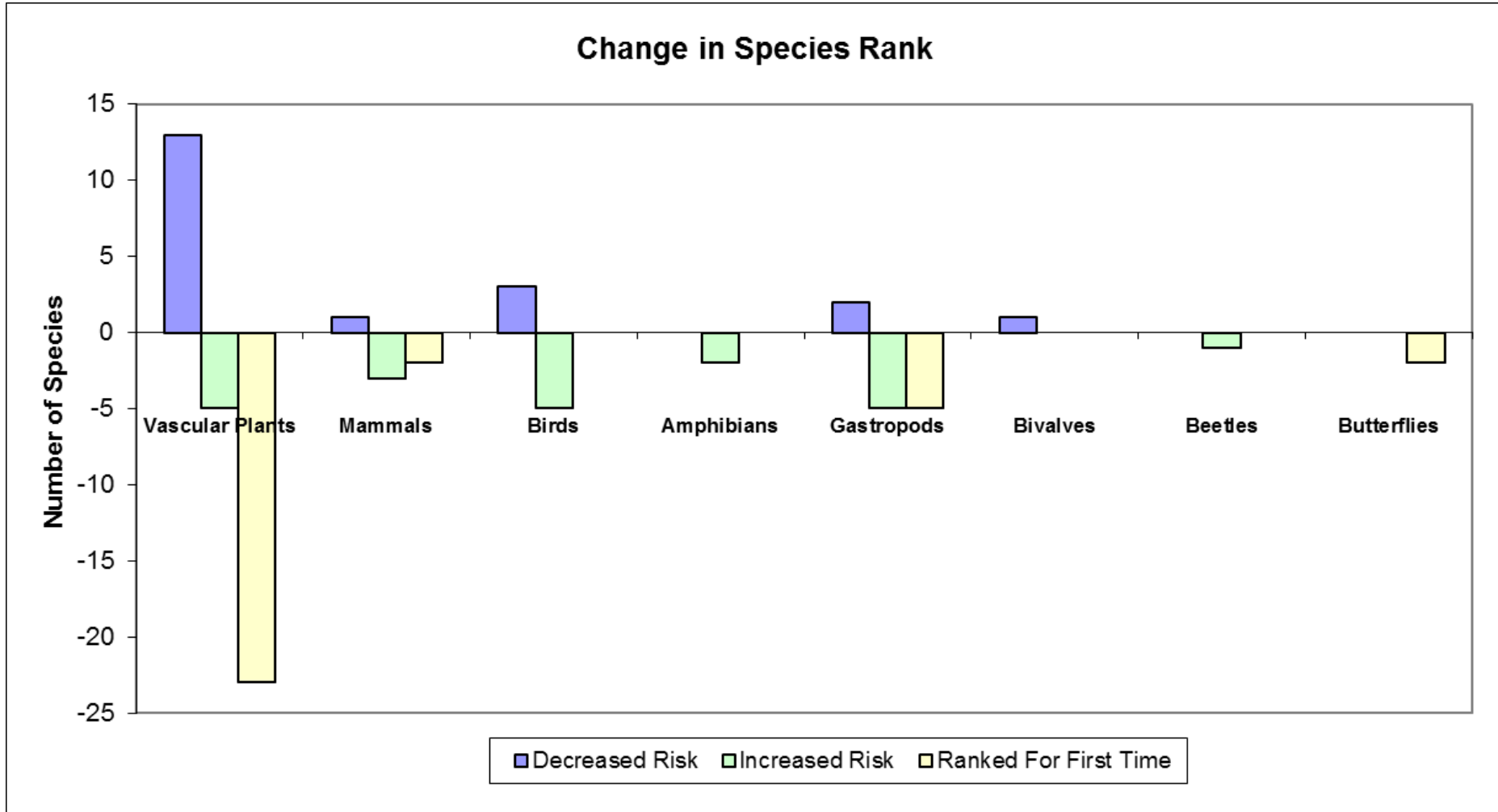
Summary of Change in Species Status Across All Categories



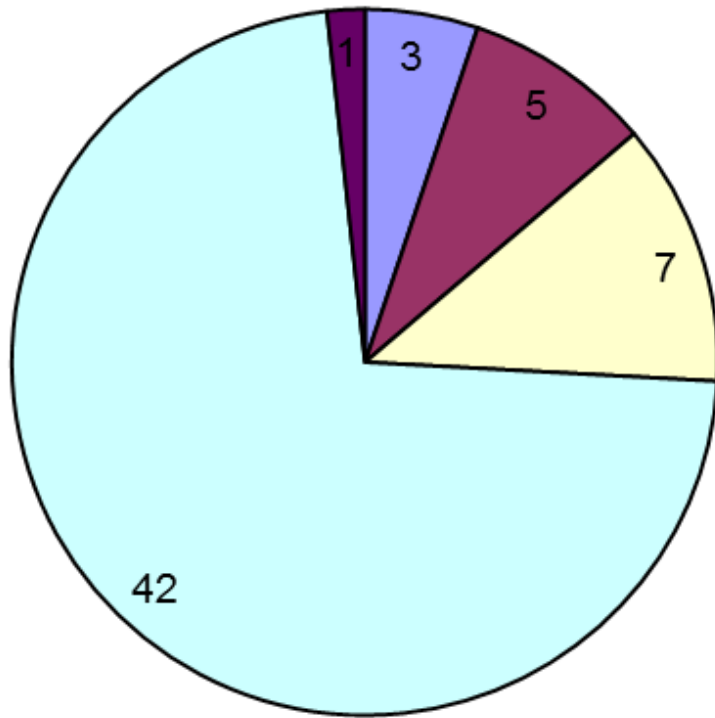
2007 – 2010 Changes

Common Name	S1->S2	S1->S3	S2->S3	S3->S4	S1->SH	SH->S1
Coast Range fawn-lily	x					
Purple-flowered rush-lily	x					
Umpqua mariposa-lily		x				
Tall bugbane				x		
Hairy sedge			x			
Saw-tooth sedge			x			
Maple-leaved sidalcea					x	
Kellogg's lily					x	
Gray wolf						x
Oregon slender salamander			x			

2010 Changes by Group

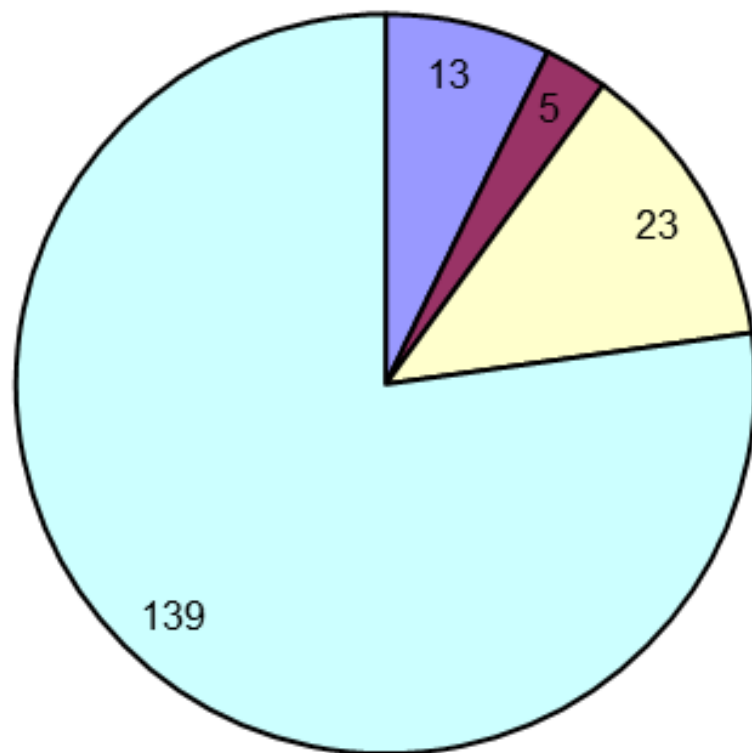


Invertebrates



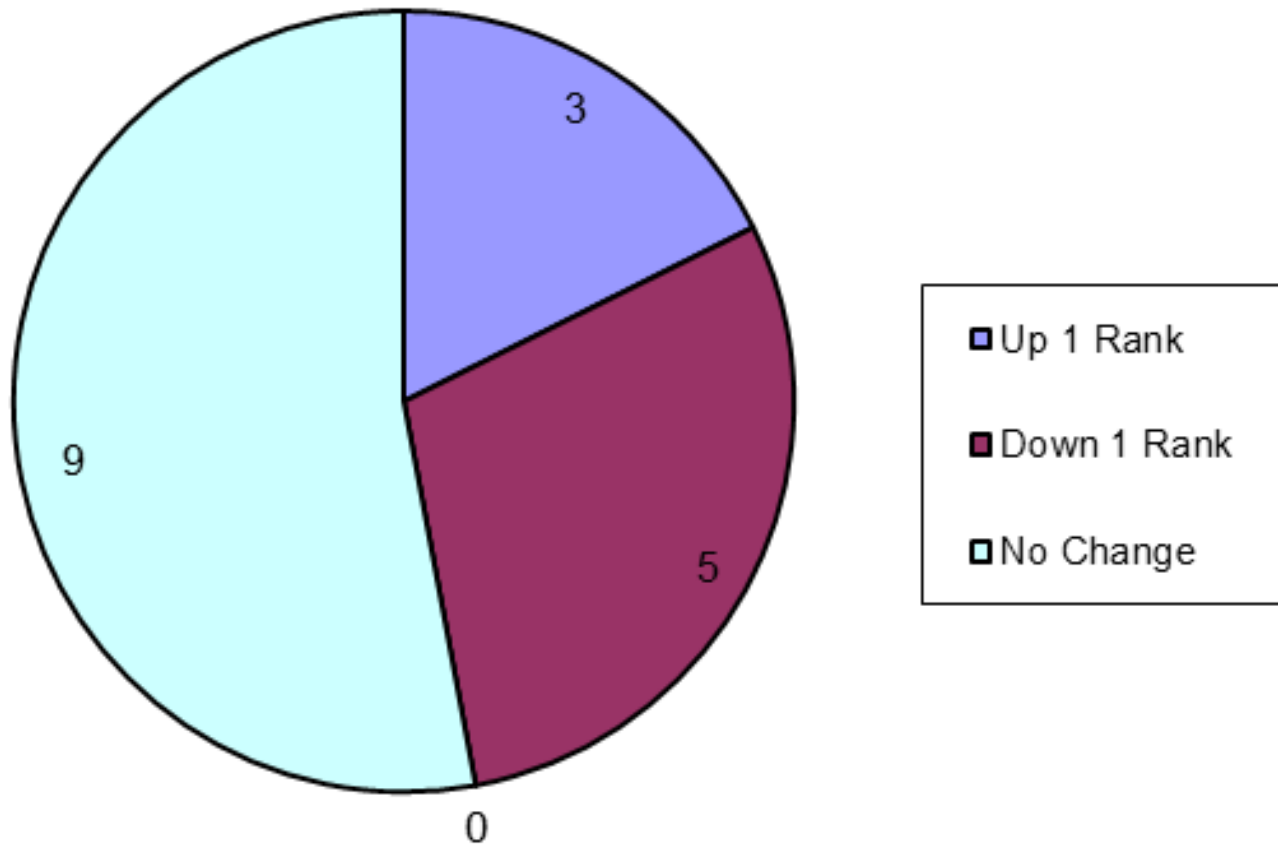
- Up 1 Rank
- Down 1 Rank
- Ranked For First Time
- No Change
- Down 2 Ranks

Vascular Plants

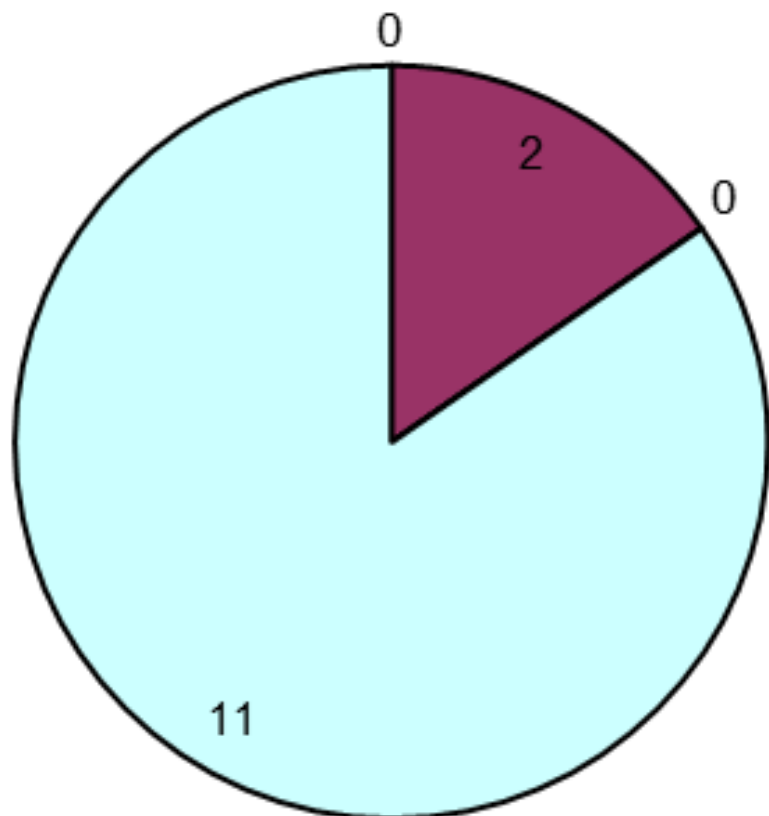


- Up 1 Rank
- Down 1 Rank
- Ranked For First Time
- No Change

Birds



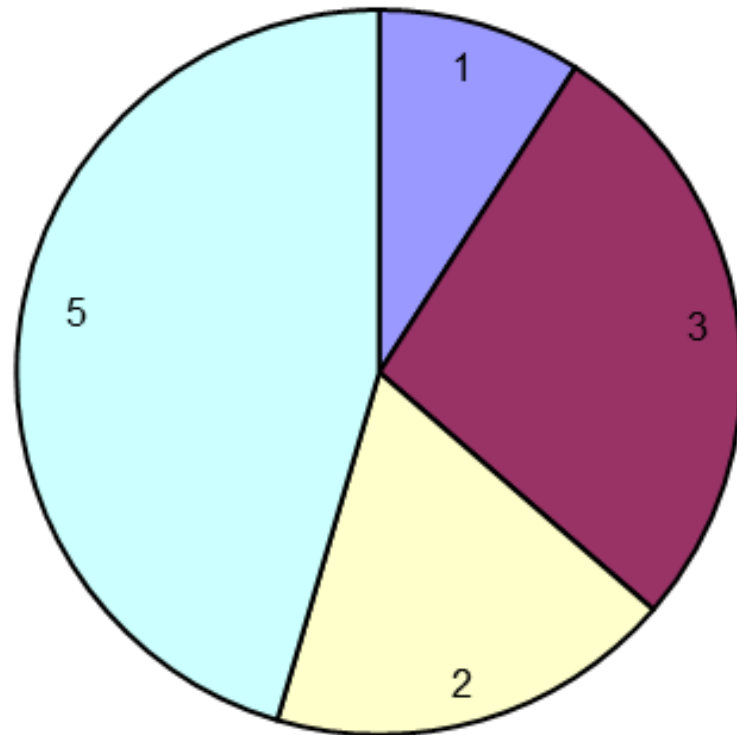
Amphibians



■ Down 1 Rank

■ No Change

Mammals



■ Up 1 Rank

■ Down 1 Rank

■ Ranked For First Time

■ No Change

In A Perfect World – What would we want to do?

- Ask the question, “How are the forest at-risk species in Oregon doing?”
 - Address the status of populations of at-risk species. This could be done by evaluating “occurrence ranks” for at-risk species in Oregon, but metrics are hard to report.
- Ask, “Are the ranges of at-risk (or all) species declining?”:
 - This can be done at various HUC (10, 12, or 14 digit watersheds), by county or other geographies.

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