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# Oregon State Rank Assessment for Golden Eagle (*Aquila chrysaetos*)

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# Natural Heritage Ranking Form - Oregon State Rank

Oregon Ranking Form Golden eagle (*Aquila chrysaetos*)

Oregon Biodiversity Information Center

## SPECIES ASSESSED

<b>Scientific Name</b>	<b><i>Aquila chrysaetos</i></b>	<b>ELCODE</b>	ABNKC22010
<b>Common Name</b>	<b>Golden eagle</b>	<b>Element ID</b>	6404

American Ornithologists' Union (AOU). 1998. Check-list of North American birds. Seventh edition. American Ornithologists' Union, Washington, D.C. [as modified by subsequent supplements and corrections published in *The Auk*]. Also available online: <http://www.aou.org/>.

## CONSERVATION STATUS RANK

<b>Assigned Rank</b>	<b>S4</b>		
<b>Rank Assignment Author</b>	Nelson, Misty	<b>Rank Review Date</b>	1/08/2024
<b>Rank Factors Author</b>	Nelson, Misty	<b>Rank Factors Date</b>	11/01/2023
<b>Calculated Rank</b>	S4	<b>Rank Change Date</b>	01/08/2024
<b>Rank Methodology Used</b>	Rank calculation - Biotics v2		

### Assigned Rank Reasons

2023: Despite continued risk of threats, population appears to be stable and widespread throughout OR. 2013: Wide distribution in OR, but threats are a concern, and wind turbines pose a new, undetermined threat. Past concern about population declines, but recent surveys indicate the population may have stabilized. Isaacs agrees with S3.

## RANGE/DISTRIBUTION

### Range Extent

<b>Rating</b>	200,000-2,500,000 square km (about 80,000-1,000,000 square miles)		
<b>Estimate</b>	232336	<b>Unit Used for Estimate</b>	Square Kilometers
<b>Comments</b>	232,336 sq km based on EOs, PODS, and Fauna data. More common east of the Cascades, but occasionally found west of the Cascades as well.		
<b>Grid Cell Size</b>	4 km <sup>2</sup> Grid Cells		
<b>Rating (as Number of 4 km<sup>2</sup> Grid Cells)</b>	H = 2,501-12,500		
<b>Comments</b>	4007 4-sq-km grid cells, based on EOs, PODS, and Fauna data.		

## ABUNDANCE AND CONDITION

<b>Rating</b>	> 300		
<b>Estimate</b>	1186		
<b>Comments</b>	1186 EOs in Biotics; 342 Research Grade observations in iNaturalist (search date 11/1/2023). Probably more than 1,000 pairs in Oregon.		
<b>Rating</b>	10,000 - 100,000 individuals		
<b>Estimate</b>	21000		
<b>Comments</b>	As of 2023, most recent PIF Population Estimates Database does not include detailed numbers for OR, but based on prior ranking update (2013) PIF population estimate: approx 21,000 individuals		

**Number of Occurrences with Good Viability/Ecological Integrity**

**Rating** Very many (>125)

**Comments**

All EOs in Biotics are dated 2011-2020.

**Number of Protected and Managed Occurrences** D = Many (13-40) occurrences appropriately protected and managed

**Number of Protected and Managed Occurrences Comments**

Estimated that 75% of nests occur on public lands, thus receive some degree of protection.

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**THREATS**

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<u>Threat Category Code</u>	<u>Threat Category</u>	<u>Calculated Impact</u>	<u>Scope</u>	<u>Severity</u>	<u>Timing</u>	<u>Comments</u>
2	Agriculture & aquaculture	CD = Medium - low	Large - restricted	Moderate: Likely to moderately degrade/reduce affected occurrences or habitat, or reduce population 11-30%		
2.3	Livestock farming & ranching	CD = Medium - low	Large - restricted	Moderate: Likely to moderately degrade/reduce affected occurrences or habitat, or reduce population 11-30%		Excessive grazing
3	Energy production & mining	C = Medium	Restricted: Affects some (11-30%) of the total population or occurrences or extent	Serious: Likely to seriously degrade/reduce affected occurrences or habitat, or reduce population 31-70%		
3.3	Renewable energy	C = Medium	Restricted: Affects some (11-30%) of the total population or occurrences or extent	Serious: Likely to seriously degrade/reduce affected occurrences or habitat, or reduce population 31-70%		
4	Transportation & service corridors	C = Medium	Restricted: Affects some (11-30%) of the total population or occurrences or extent	Serious: Likely to seriously degrade/reduce affected occurrences or habitat, or reduce population 31-70%		
4.1	Roads & railroads	C = Medium	Restricted: Affects some (11-30%) of the total population or occurrences or extent	Serious: Likely to seriously degrade/reduce affected occurrences or habitat, or reduce population 31-70%		
4.2	Utility & service lines	C = Medium	Restricted: Affects some (11-30%) of the total population or occurrences or extent	Serious: Likely to seriously degrade/reduce affected occurrences or habitat, or reduce population 31-70%		

5	Biological resource use	D = Low	Small: Affects a small proportion (1-10%) of the total population or occurrences or extent	Moderate: Likely to moderately degrade/reduce affected occurrences or habitat, or reduce population 11-30%
5.1	Hunting & collecting terrestrial animals	D = Low	Small: Affects a small proportion (1-10%) of the total population or occurrences or extent	Moderate: Likely to moderately degrade/reduce affected occurrences or habitat, or reduce population 11-30%
8	Invasive & other problematic species, genes & diseases	D = Low	Large: Affects most (31-70%) of the total population or occurrences or extent	Slight: Likely to only slightly degrade/reduce affected occurrences or habitat, or reduce population 1-10%
8.1	Invasive non-native/alien species/diseases	D = Low	Large: Affects most (31-70%) of the total population or occurrences or extent	Slight: Likely to only slightly degrade/reduce affected occurrences or habitat, or reduce population 1-10%
11	Climate change & severe weather	Unknown	Unknown	Serious - slight
11.1	Habitat shifting & alteration		Unknown	Unknown
11.2	Droughts	Unknown	Unknown	Serious: Likely to seriously degrade/reduce affected occurrences or habitat, or reduce population 31-70%

**Calculated Overall Threat Impact** B = High

**Assigned Overall Threat Impact** B = High

**Overall Threat Impact Comments**

Threats from collision with vehicles, power lines, turbines, poisoning, gunshot. Population may be declining due to a decline in jackrabbit abundance.

**TRENDS**

**Short-Term Trend**

**Rating** G = Relatively Stable (<=10% change)

**Comments**

Recent surveys indicate little decline.

**Long-Term Trend**

**Rating** D = Decline of 50-70%

## Comments

Significant declines in W US.

<b>RANKING REFERENCES</b>
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<u>Short Citation</u>	<u>Author</u>	<u>Year</u>	<u>Full Citation</u>
Carey		2003	Carey, C.G. 2003. Golden Eagle ( <i>Aquila chrysaetos</i> ) in <i>Birds of Oregon: A General Reference</i> . D.B. Marshall, M.G. Hunter, and A. L. Contreras, eds. Oregon State University Press, Corvallis, OR.
Isaacs		2013	Frank Isaacs. 2013. Pers. com. regarding golden eagle ( <i>Aquila chrysaetos</i> ) status. Email to Eleanor Gaines 4/16/13
Kochert et al.		2002	Kochert, M. N., K. Steenhof, C. L. McIntyre and E. H. Craig. 2002. Golden Eagle ( <i>Aquila chrysaetos</i> ), <i>The Birds of North America Online</i> (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the <i>Birds of North America Online</i> : <a href="http://bna.birds.cornell.edu/bna/species/684">http://bna.birds.cornell.edu/bna/species/684</a>
ORBIC		2019	Oregon Biodiversity Information Center. 2019. Oregon Biotics Rare Species Database. Maintained by ORBIC at Portland State University, Portland, OR.
Partners In Flight		2007	Partners In Flight. 2007. Landbird Population Estimates Database. <a href="http://rmbo.org/pif_db/laped/default.aspx">http://rmbo.org/pif_db/laped/default.aspx</a>
Partners In Flight		2012	Partners in Flight. 2012. Species Assessment Database.

<b>RESOURCES</b>
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Oregon Biodiversity Information Center, Institute for Natural Resources  
Portland State University, Mail Stop: INR, PO Box 751, Portland, OR 97207-0751 Phone: 503-725-9950

Additional ORBIC species ranking forms posted at  
<https://inr.oregonstate.edu/orbic/rare-species/ranking-documentation>

Information on Natural Heritage ranking methodology is available at  
<http://www.natureserve.org/biodiversity-science/publications/natureserve-conservation-status-assessments-methodology-assigning>

The Conservation Rank Calculator is developed and maintained by NatureServe and is available from  
<http://www.natureserve.org/conservation-tools/conservation-rank-calculator>

<b>ASSESSMENT CITATION</b>
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Nelson, Misty. 2024. Oregon state rank assessment for Golden eagle (*Aquila chrysaetos*). Oregon Biodiversity Information Center. Institute for Natural Resources, Portland State University, Portland, OR.