

# Pandion haliaetus

*This species is complete.*

August 1, 2014 by Amber Lankford

Author(s) Expertise: 5

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<b>Sensitivity Factor</b>	<b>Sensitivity 1 - 7 (one being least sensitive, seven being most sensitive)</b>	<b>Confidence 1 - 5 (one being least sensitive, five being most sensitive)</b>
Generalist/Specialist	6 High	3 Fair
Physiology	1 Low	3 Fair
Life History	5 High	4 Good
Habitat	7 Extremely High	4 Good
Dispersal Ability	2 Medium-Low	1 Very Poor
Disturbance Regimes	1 Low	2 Poor
Ecology	5 High	4 Good
Non-Climatic	5 High	3 Fair
Other (weight)		

Sensitivity Score : 55 Medium

## Sensitivity Score

$100 * [(0.5 * (\text{Dispersal Distance} + \text{Dispersal Barriers}) + \text{Disturbance Regimes} + (0.5 * \text{Generalist/Specialist}) + \text{Physiology} + (0.5 * \text{Life History}) + \text{Sensitive Habitats} + \text{Ecology} + \text{Non-Climatic Stressors} + (\text{Other} * \text{Weight}) / 49 + (7 * \text{Weight})]$

Note: if Sensitive Habitats are identified, this factor automatically gets a value of seven, otherwise it remains zero.

Confidence Score : 2 Poor

## Confidence Score

The Confidence Score is an average of the Confidence column above.

Overall User Ranking: 5 High

**Author Expertise:**

5

**Common Name:**

Osprey

**Is this Species completed:**

Yes

Taxonomy

This is a description of the whole group

**Scientific Name:**

Pandion haliaetus

**Geography:**

PNW

**Realm:**

Terrestrial

Freshwater

**Kingdom:**

Animal

**Phylum:**

Chordata

**Class:**

Aves

**Order:**

Accipitriformes

**Family:**

Pandionidae

**Genus:**

Pandion

**Global Rank:**

G5 (1996)

**Rounded Global Rank:**

G5 - Secure

**IUCN:**

Least Concern ver 3.1 - 2013

**US Endangered Species Act Code:**

Not Isited

**Species Element Code:**

ABNKC01010

Generalist/Specialist

**Broadly, where does this species fall on the spectrum of generalist to specialist? :**

6

**Confidence in your assessment of the degree to which the species is a generalist or specialist:**

3 Fair

**Please specify which factors, if any, make the species more of a specialist:**

predator/prey relationship

foraging dependency

**Please further describe the relationships that make the species more of a specialist:**

Feeds almost exclusively on fish. Catches fish on water surface.

**Citations:**

Poole, Alan F., Rob O. Bierregaard and Mark S. Martell. 2002. Osprey (*Pandion haliaetus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology;

Retrieved from the Birds of North America Online:

<http://bna.birds.cornell.edu/bna/species/683>

Physiology

**Species' physiological sensitivity:**

1 low sensitivity

**Confidence in how physiologically sensitive the species is to climate change:**

3 Fair

**Comments:**

Described as being a fairly "hardy" bird, so temperature related mortality perceived as less likely

**Citations:**

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Life History

**Species' reproductive strategy:**

5

**Confidence in your assessment of the species' reproductive strategy:**

4 Good

**Is the species polycyclic, iteroparous, or semelparous?:**

Iteroparous (reproduces in successive cycles--characteristic of K-strategists)

**Average length of time to reproductive maturity:**

3 years

**How many surviving young can an individual produce during a single reproductive event under optimal conditions?:**

2-3

**How many reproductive events can an individual undergo in a single year under optimal conditions?:**

1

**Sensitive Habitats**

**Depends on the following sensitive habitat types:**

Coastal Lowlands/Marshes/Estuaries/Beaches

**Confidence in whether the species depends on the listed sensitive habitat types:**

4 Good

**Level of philopatry:**

high

**Comments:**

Habitats generally have permanent, shallow (0.5-2m) bodies of water and open nesting sites that are elevated, but they may occur in boreal type forest to open wetland. Generally high fidelity to breeding sites.

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**Dispersal Ability**

**Maximum annual dispersal distance:**

25-50km

**Confidence in maximum annual dispersal distance:**

1 Very Poor

**Within the context of dispersal distance above, do barriers to dispersal exist?:**

1 None

**Confidence in barriers to dispersal exists:**

1 Very Poor

Disturbance Regimes

**How sensitive is this species to one or more disturbance regimes:**

1 not sensitive on the nature of any disturbance regime

**Confidence in how sensitive is this species on one or more disturbance regimes:**

2 Poor

Ecological Relationships

**Please specify which of the following (if any) are sensitive to climate change for this species:**

forage

**Confidence in how sensitive the species is to other effects of climate change on its ecology:**

4 Good

**Which types of climate and climate-driven changes in the environment affect these aspects of the species' ecology?:**

temperature

precipitation

**How sensitive is this species? ecological relationships to the effects of climate change?:**

5

**Comments:**

Climatic changes which affect fisheries, particularly so far as timing and abundance relative to hatching and rearing of young to fledging, likely have the greatest impact ecologically.

Interacting non-climatic stressors

**To what degree do other, non-climate-related threats, to the species make it more sensitive to climate change?:**

5

**Confidence in the degree to which non-climate-related threats affect the species' sensitivity to climate change:**

3 Fair

**Please check all of the stressors that make the species more sensitive to climate change:**

habitat loss or degradation

direct human conflict (including harvesting)

pollution

**Comments:**

Decreased reproductive success associated with pesticides use over the last century. When osprey nest on power poles, there is a significant risk of electrocution. Osprey appear to be relatively tolerant of development, but logging that removes nest trees may contribute to declines in local abundance. Artificial nesting sites have helped to replace nest sites, or to encourage osprey to not nest on power poles.

**Citations:**

Poole, Alan F., Rob O. Bierregaard and Mark S. Martell. 2002. Osprey (*Pandion haliaetus*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online:  
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**Overall User Ranking**

**In your opinion, how would you rank the overall sensitivity of this species to climate change?:**

5

**Confidence in your overall assessment of the sensitivity of this species to climate change:**

4 Good

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**Source URL (retrieved on 2017-06-23 15:22):** <http://climatechangesensitivity.org/species/pandion-haliaetus>

**Links:**

[1] <http://climatechangesensitivity.org/printpdf/992>