THE 2008 IUCN REASSESSMENT OF THE STATUS OF MONK SEALS

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Background

In 2008, the International Union for the Conservation of Nature (IUCN) published the results of a reassessment of the status of the world’s land and marine mammals (www.iucnredlist.org/mammals, Schipper et al. 2008). This was the first major IUCN review of the status of mammals since 1996, and each taxon (species or subspecies) was evaluated based on specific criteria that reflect relative degrees of endangerment (IUCN 2001). As part of this project, the IUCN’s Pinniped Specialist Group (PSG) reviewed the status of 47 taxa of seals, sea lions, and walrus, including three species of monk seals.

Table 1. Summary of IUCN Red List status for monk seals in 1996 and 2008.

<table>
<thead>
<tr>
<th>Species</th>
<th>1996 listing</th>
<th>2008 listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean monk seal</td>
<td>Extinct</td>
<td>Extinct</td>
</tr>
<tr>
<td>Mediterranean monk seal</td>
<td>Critically endangered</td>
<td>Critically endangered</td>
</tr>
<tr>
<td>Hawaiian monk seal</td>
<td>Endangered</td>
<td>Critically endangered</td>
</tr>
</tbody>
</table>

Table 2. Major known threats to the survival of Mediterranean and Hawaiian monk seals.

<table>
<thead>
<tr>
<th>Mediterranean monk seal</th>
<th>Hawaiian monk seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement from habitat</td>
<td>Food limitation</td>
</tr>
<tr>
<td>Destruction of physical habitats</td>
<td>Entanglement in marine debris</td>
</tr>
<tr>
<td>Fishery interactions—shooting and netting</td>
<td>Shark predation</td>
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<tr>
<td>Depletion of prey resources</td>
<td>Fishery interactions (entanglement in nets and hooking)</td>
</tr>
<tr>
<td>Pollution</td>
<td>Disease</td>
</tr>
<tr>
<td>Disease</td>
<td>Displacement from habitat</td>
</tr>
<tr>
<td>Reduced genetic diversity</td>
<td></td>
</tr>
</tbody>
</table>

Two young Mediterranean monk seals at Cap Blanc.

Mediterranean monk seal, Monachus monachus

The PSG review of the status of Mediterranean monk seals (Aguilar and Lowry 2008) concluded the following: “The Mediterranean monk seal population is greatly reduced in size from historical levels, has been declining in abundance since at least 1958, and will without question continue to decline for some time into the future. The causes for the decline are only partially understood, have not caused, and may not be reversible. The number of mature individuals within the population is currently only about 600. The total number of animals in the northwestern Mediterranean Islands, their core range, could drop to about 200 within the next 20 years. The Mediterranean monk seal qualifies for listing as vulnerable under IUCN criterion D, for endangered under criteria A2(a) and C1, and critically endangered under criteria A3(c) and e5 and A4(c) and e).” The species was listed as critically endangered on the 2008 Red List.

Hawaiian monk seal, Monachus schauinslandi

The PSG review of the status of Hawaiian monk seals (Lowry and Aguilar 2008) concluded the following: “The Hawaiian monk seal population is greatly reduced in size from historical levels, has been declining in abundance since at least 1958, and will without question continue to decline for some time into the future. The causes for the decline are only partially understood, have not caused, and may not be reversible. The number of mature individuals within the population is currently only about 600. The total number of animals in the northwestern Hawaiian Islands, their core range, could drop to about 200 within the next 20 years. The Hawaiian monk seal qualifies for listing as vulnerable under IUCN criterion D, for endangered under criteria A2(a) and C1, and critically endangered under criteria A3(c) and e5 and A4(c) and e).” The species was listed as critically endangered on the 2008 Red List.

Caribbean monk seal, Monachus tropicalis

The last authoritative sighting of Caribbean monk seals was at a small seal colony off Saramina Banks (Colombia) in 1902. None of the seal sightings reported within the historical range of the species since then have been confirmed to be monk seals. Recent sightings of seals in this area that could be investigated have been of other species, particularly hooded seals (Mignucci-Giannoni and Odell 2001). Thus, Caribbean monk seals meet the IUCN criteria for extinct and are listed as such on the 2008 IUCN Red List (Kovacs 2008).

Summary

The conservation status of monk seals did not improve between the 1996 and 2008 IUCN evaluations (Table 1). There is no new evidence to suggest that Caribbean monk seals are anything but extinct. Mediterranean monk seals are still critically endangered and current demographic trends do not indicate recovery; for the few populations from which information is available, numbers suggest either stabilization or decline. The condition of the Hawaiian monk seal has deteriorated, and because of their continued decline in numbers, they have now been listed as critically endangered.

At this time prospects for the remaining members of the genus Monachus, a group of animals that has survived for more than 10 million years, are not good. Only about 1,500 individuals remain in two widely separated species, each of which faces numerous threats (Table 2). Serious and effective conservation actions are needed if monk seals are to persist in the future.

References


Footnotes

1  A taxon is Endangered when it faces a high risk of extinction in the wild. 2  A taxon is Critically endangered when it faces an extremely high risk of extinction in the wild. 3  A taxon is Vulnerable when it faces a high risk of extinction throughout most or all of its range. 4  A taxon is Near Threatened when it faces a high risk of extinction in the near future. 5  A population reduction of ≥80% over three generations including both past observations and future projections. 6  A population reduction of ≥80% over three generations projected to be met in the future.

Acknowledgments

The PSG thanks Simon Stuart (IUCN) for guidance through the assessment process and Jan Slipper (IUCN & Conservation International) for coordination and logistical support. The workshop was supported by NOAA Fisheries (MMSP/ESA permit #848-1365) and the Wildlife Conservation Society. A workshop report is planned for 2011. Special thanks to Simon Stuart and coworkers at the Population and Species Viabilities Laboratory (University of St. Andrews) for their help with this work.

Monk seals face a variety of threats including: food shortages, shark predation, marine debris and human encroachment on their habitat.

A Hawaiian monk seal mother-pup pair nursing peacefully on Molokai.

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Footnotes

1  A taxon is Extinct when there is no reasonable doubt that the last individual has died. 2  A taxon is Critically endangered when it faces an extremely high risk of extinction in the wild. 3  A taxon is Vulnerable when it faces a high risk of extinction throughout most or all of its range. 4  A taxon is Near Threatened when it faces a high risk of extinction in the near future. 5  A population reduction of ≥80% over three generations includes both past observations and future projections. 6  A population reduction of ≥80% over three generations projected to be met in the future.

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