

Press release

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Future looks bleak for one of world's smallest seal species

One of the smallest seals – the Caspian - has joined a growing list of mammal species in danger of extinction.

Scientists from the University of Leeds together with international partners have documented the disastrous decline of the seal - a species found only in the land-locked waters of the Caspian Sea – in a series of surveys which reveal a 90 per cent drop in numbers in the last 100 years.

The research findings have prompted the International Union for Conservation of Nature (IUCN) to move the Caspian seal from the Vulnerable category to Endangered on its official IUCN Red List of Threatened Species, announced today in Barcelona [06 October 2008].

Dr Simon Goodman of Leeds' Faculty of Biological Sciences says: "Each female has just one pup a year, so with numbers at such a low levels, every fertile female that dies is a nail in the coffin of the species. We're hoping that the seal's change in Red List status will help raise awareness about their plight, and the many important conservation issues facing the whole Caspian ecosystem."

Commercial hunting, habitat degradation, disease, pollution and drowning in fishing nets have caused the population of the seal collapse from more than 1 million at the start of the 20th century to around 100,000 today.

Results from surveys conducted in 2005 and 2006, published recently in the scientific journal *Ambio*, show that in 2006 there were only 17,000 breeding females, barely enough to keep the population viable, given the low survival rate of pups.

Moreover, new results from surveys conducted by the team in 2007 and 2008, show that since 2005 the number of pups being born has plummeted by a catastrophic further 60 per cent to just 6,000-7,000, and the number of adults seen on the breeding grounds of the winter ice-field is down by a third on 2005.

With commercial hunters from Dagestan in the Russian Federation killing more than 8,000 pups in recent years, the team is urging the governments of the Caspian countries to instate a ban on hunting as the first step in avoiding further declines. "Without a suite of conservation measures there is a very high risk the species will become extinct, and possibly within our lifetime," says Dr Goodman.

The team is using its latest figures and ongoing research to develop a conservation action plan, which will prioritise a ban on hunting the seal and establish protected areas with the countries bordering the Caspian Sea. The basic plan has been completed, but the main recommendations are yet to be fully implemented by the countries of the region.

Dr Susan Wilson, a consultant in seal conservation biology and one of the authors of the *Ambio* paper says: "Although there are no easy fixes to the problems facing Caspian seals,

we hope to get some concrete measures in place over the next year, particularly in Kazakhstan where the government has been quick to recognise the need for urgent action.”

Dr Goodman’s team is also working on a project – funded by Defra through the Darwin Initiative – to enhance the ability of local scientists to monitor and manage the seal population themselves.

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Notes to editors:

1. **The surveys** are the first to be undertaken since the 1980s and have been led by Dr Simon Goodman of the University of Leeds and Dr Tero Härkönen of the Swedish Museum of Natural History in Stockholm. Colleagues include researchers from The Estonian Fund for Nature; The St Petersburg Natural Society and St Petersburg University, Russian Federation; The Tara Seal Research Centre, Northern Ireland, and The Fisheries Research and Production Centre, Kazakhstan.

The surveys are aerial surveys conducted mid-February to early March each year just after the pups are born on the winter ice-sheet in the northern Caspian. The surveys have been funded by the UN-sponsored Caspian Environmental Programme in 2005 <http://www.caspianenvironment.org>, by Agip-KCO in 2006 and 2008, and by the Darwin Initiative in 2007 <http://www.darwin.gov.uk>. The latest survey results will be presented at the Marine Mammals of the Holarctic conference in Odessa, Ukraine, 14-18 October.

2. **The International Union for Conservation of Nature (IUCN)** maintains a database of the world’s threatened species, which is updated every 4 years. <http://www.iucnredlist.org>

The IUCN is the world's oldest and largest global environmental network, comprising more than 1,000 government and NGO member organisations, and almost 11,000 volunteer scientists and experts in some 160 countries. It supports scientific research; manages field projects all over the world; and brings governments, NGOs, the UN, international conventions and companies together to develop policy, laws and best practice. <http://www.iucn.org>

3. **The Caspian seal** is a species of ice breeding seal, endemic to the Caspian Sea. It is one of the smallest species of seal in the world with adults reaching an average of 1.5m in length, and 86kg in weight. Caspian seals give birth to white coated pups during late January to mid-February on the ice-field that forms in the shallow north Caspian each winter. They feed on a wide variety of fish, but many of their preferred prey species may be declining because of over-fishing by humans and the introduction of the invasive jelly fish (*Mnemiopsis leidyi*).

Caspian seals were subject to extremely heaving commercial hunting throughout the 20th century (initially for seal oil derived from their blubber, and later for skins), which was the main driver of the historical decline.

4. The Faculty of Biological Sciences at the University of Leeds is one of the largest in the UK, with over 150 academic staff and over 400 postdoctoral fellows and postgraduate students. The Faculty has been awarded research grants totalling some £60M and funders include charities, research councils, the European Union and industry. Each of the major units in the Faculty has the highest Grade 5 rated research according to the last government (HEFCE) Research Assessment Exercise, denoting research of international standing. The Faculty is also consistently within the top three for funding from the government's research councils, the BBSRC and NERC. www.fbs.leeds.ac.uk

The University of Leeds is one of the largest higher education institutions in the UK with more than 30,000 students from 130 countries. With a turnover approaching £450m, Leeds is one of the top ten research universities in the UK, and a member of the Russell Group of research-intensive universities. It was placed 80th in the 2007 Times Higher Education world universities league table. The University's vision is to secure a place among the world's top 50 by 2015. www.leeds.ac.uk

Further weblinks

Caspian seal conservation project: <http://www.caspianseal.org/>

Ambio journal: <http://ambio.allenpress.com>

Caspian Environment Programme: <http://www.caspianenvironment.org>

Darwin Initiative: <http://www.darwin.gov.uk>

Marine Mammals of the Holarctic conference: <http://mmh5.2mn.org/>

Swedish Museum of Natural History:

<http://www.nrm.se/2.5fdc727f10d795b1c6e80005635.html>