

THE ROYAL
ZOOLOGICAL SOCIETY
OF SCOTLAND



OWNERS OF EDINBURGH ZOO
& HIGHLAND WILDLIFE PARK
REGISTERED CHARITY No. SC004064

From Penguins to Pandas - the conservation game

Endangered Game Fact Files (Teachers Notes)

© RZSS 2014



SCILT Scotland's
National Centre
for Languages

育 **SCEN**
SCOTLAND CHINA EDUCATION NETWORK

Endangered Game Facts

Item	Fact
<p>Traditional Chinese Medicines (China)</p>	<p>Traditional Chinese Medicines (TCMs) have a very long and important history in health care in China. There is an increased use of artificial alternatives for the animal parts and artificially grown plants but unfortunately the use of endangered animals has not disappeared.</p> <p>Some species used in TCMs are regulated in trade under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).</p>
<p>Shahtoosh (China)</p>	<p>The chiru is an antelope found in the high mountains of Tibet. Shahtoosh shawls are made from their wool. They are made from the very fine underfleece of the chiru so the animal has to be killed and skinned to get it. About 3 chiru can die to make just one shawl. It is illegal to kill the chiru and to trade in shahtoosh but it is still happening.</p>
<p>Ivory (China and Africa)</p>	<p>It is hard to believe but the trade in ivory is still big business. Most of the ivory sold in China is imported from Africa. There is a limited number of legal businesses trading in ivory but unfortunately many more are poaching and smuggling the ivory illegally. Both African males and females have tusks but it is usually only the male Asian elephant that has them.</p>
<p>TRAFFIC (China)</p> <p>TRAFFIC works worldwide but for the purposes of this game—it was China focused.</p>	<p>TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. TRAFFIC’s vision is of a world in which trade in wild plants and animals is managed at sustainable levels without damaging the integrity of ecological systems and in such a manner that it makes a significant contribution to human needs, supports local and national economies and helps to motivate commitments to the conservation of wild species and their habitats.</p>
<p>Tiger (China)</p>	<p>China is home to 3 species of tiger although one is now thought to be extinct—the South China tiger. The other two are the Indochinese and the Amur. The Amur is the largest tiger in the world. There are estimated less than 400 left in the wild. The main threat is poaching for TCMs.</p>

Endangered Game Facts

Item	Fact
Giant Panda (China)	The giant panda is unique to China and its main threat is habitat loss. The giant panda used to live throughout south eastern China but is now in 6 isolated mountain areas. There is however a lot of work being done to reforest and reintroduce giant pandas to the wild.
Red Panda (China)	<p>The red panda (actually two subspecies) are found in China, Nepal and India. They have also suffered from habitat loss but with the addition of some hunting for their fur.</p> <p>The red panda and giant panda are not related. Giant panda is a bear and the red panda is in a family of its own but closely related to the raccoons. They do however have some similarities to the giant panda.</p>
Silkworm cocoon (China)	The silkworm is now extinct in the wild and only farmed in captivity to make silk. The silkworm is not a worm but a moth <i>Bombyx mori</i> .
Climate Change (China, Africa, South America and Falkland Islands)	<p>Climate change (C.C.) will have effects worldwide. Looking specifically at the four habitats of the animals looked at in this outreach:</p> <p><i>Mountains, China</i> - C.C. can affect temperatures to rise so some animals needing cooler temperatures are moving further up the mountain. At some point, the animals will run out of mountain!</p> <p><i>Rainforest, Uganda</i> - C.C. will cause less rain in the rainforest so less trees in an already reducing forest. Deforestation has already led to the global warming.</p> <p><i>Wetlands, Brazil</i> - C.C. can cause wetlands to dry up or shrink if there is less rainfall.</p> <p><i>Oceans, Falkland Islands</i> - C.C. can cause sea level to rise as a result of warming. Some islands and coastal land could end up under water. The temperature will also affect the ocean currents and this will affect the climate in all areas of the world.</p>
Giant Armadillo (South America)	The giant armadillo is a species that very little is known about and also very endangered. RZSS research is the first long term ecological study of this species. RZSS is also studying the southern naked tail, nine banded and yellow banded armadillos.

Endangered Game Facts

Item	Fact
<p>MSC fish (South America and Falkland Islands)</p>	<p>Overfishing is a big threat to certain areas and wildlife. The Marine Stewardship Council (MSC) works with partners to transform the world's seafood markets and promote sustainable fishing practices.</p>
<p>Giant Anteater (South America)</p>	<p>The giant anteater is endangered from habitat loss and hunting. Some are captured for the illegal pet trade! The habitat loss is mainly from land being used in agriculture.</p>
<p>Hyacinth Macaw (South America)</p>	<p>The hyacinth macaw is the longest parrot in the world, reaching 100cm. The biggest threat to these macaws is the illegal pet trade. In the 1980's around 10,000 birds were illegally captured. Along with rainforest destruction the population of macaws in the Amazon rainforest is declining. However of the estimated population of 6,500 the majority, 5,000 are in the Pantanal where there have been signs of a recovery.</p>
<p>Palm Oil (South America and Africa)</p>	<p>Palm oil is an important vegetable oil which is used as a raw material in both the food and non-food industries. Palm oil production has increased in recent years due to the demand. It can only be cultivated in tropical areas of Asia, Africa and South America. The main palm oil production is in Indonesia and Malaysia but it is also grown in South America and Africa. The top five producing countries are: Indonesia, Malaysia, Thailand, Nigeria and Columbia. Palm oil would be difficult to replace but could be managed by sustainable plantations.</p>
<p>Cow (South America)</p>	<p>Cattle ranching is the main economy of the Pantanal. The traditional methods of cattle ranching can work well with the habitat. In the dry season the cattle graze on the grasslands and move onto higher ground during the wet season. However due to ranchers not earning enough money, some forests have been cleared and an African grass introduced to make more and better grazing areas.</p>
<p>Pig (South America)</p>	<p>An introduction to the wild of an invasive species like the domesticated pig usually causes problems for the wildlife. However RZSS research has shown that feral pigs and native peccaries mainly used different habitats. It also turned out be an advantage to have the feral pigs as the hunters preferred to hunt them rather than the peccaries.</p>

Endangered Game Facts

Item	Fact
<p>Construction (South America)</p>	<p>The Hidrovia is a huge project to build a waterway to allow passage for larger barges which would lower the cost of transporting goods. This would involve dredging and changing the course of the river Paraguay - straightening, widening and deepening the river. This would have a major impact on the Pantanal. The Hidrovia project was cancelled. However it is always a threat that it will happen. Various smaller projects have been proposed and although smaller projects may sound as if they don't have as much impact on the area, in fact a number of smaller projects could be worse!</p> <p>There are also developments in agriculture and mining in the surrounding areas of the Pantanal which affect the way the river runs and the floodplain.</p>
<p>Chimpanzees (Africa)</p>	<p>Chimpanzees are endangered from habitat loss, hunting for bushmeat and threat of injury from snares. Snares are set by local people to catch other small animals. The chimps get caught in these by accident. The chimps will panic and pull the snare tighter around its wrist or ankle. This means the chimps cannot use their hands or feet.</p>
<p>Gorilla (Africa)</p>	<p>The mountain gorilla is found on the borders of Uganda, Rwanda and Democratic Republic of Congo (DRC). In the past gorillas were caught in crossfire during the wars in DRC and hunted for food by the soldiers. They are still hunted today and suffering from habitat loss. The estimated population is under 700.</p>
<p>Springbok Antelope handbag (Africa)</p>	<p>The springbok is an African antelope. Historically in 1800's the springbok was hunted and the population was devastated. However it has been reintroduced to private land and protected areas.</p>
<p>The Goat Scheme (Africa)</p>	<p>The Goat Scheme encourages local hunters to stop setting snares and instead they are given goats to rear and breed. The local people hunted the wild animals because they could not afford to buy meat. If they have goats they can farm the goats and stop hunting endangered animals. The snares were set to mainly catch antelope and bush pigs but chimpanzees got caught in them.</p>

Endangered Game Facts

Item	Fact
<p>Ebony Wood (Africa)</p>	<p>Ebony is a dense black wood. It is finely textured and when polished has a very smooth finish which made it valuable as an ornamental wood. Ebony was used extensively from the 17th century and is therefore very endangered.</p> <p>Both ebony and ivory were heavily used for making piano keys.</p>
<p>Fairtrade (Africa)</p> <p>Fairtrade works worldwide but for the purposes of this game— it was Africa focused.</p>	<p>The Fairtrade Foundation is about better prices, decent working conditions, local sustainability, and fair terms of trade for farmers and workers in the developing world. Products with the FAIRTRADE mark must meet the international Fairtrade standards.</p>
<p>King Penguin (Falkland Islands)</p>	<p>The king penguin is the second largest penguin in the world. The threats to the penguins are pollution in the seas, oceans and on the beaches. Also disturbance from human activity.</p>
<p>Rockhopper Penguin (Falkland Islands)</p>	<p>The rockhopper penguin lives on very steep cliffs. The threats are changes in ocean currents and temperature, possibly caused by global warming. Also pollution in the seas and oceans.</p>
<p>Black– browed albatross (Falkland Islands)</p>	<p>Albatross are one of the largest flying birds. They soar thousands of miles across the oceans. They only land to nest and raise their young. The black-browed albatross became endangered through long line fishing. The albatross would spot the bait on the end of the long line and swoop down to catch it. Having been caught in the hooks they would drown. Thousands of albatross would be killed by long line fishing every season. Fortunately, through regulation of the industry, the black-browed albatross has increased in numbers. Nowadays there is only about 1 killed every 2 years. Regulations include the lines being deployed at night and at lower depths.</p>
<p>Long line Fishing Hook (Falkland Islands)</p>	<p>Long line fishing is a commercial fishing method. It uses a long line baited with many hooks. Other marine life can be caught while fishing, which is known as bycatch.</p>
<p>Skip with rubbish from a beach clean (Falkland Islands)</p>	<p>It is amazing what can be found on a beach clean. A morning beach clean along a short stretch of a Falkland beach filled an entire full size skip. There were many toothpaste tops and cotton buds within the waste and these are items penguins might swallow.</p>

Endangered Game Facts

Item	Fact
Cruise Ship (Falkland Islands)	Large cruise ships land each day in the summer at Stanley, the capital of the Falklands. These cruise ships can have 2000-3000 passengers. The total population of the Falkland Islands is only about 2900. Many of these passengers want to see the penguins and bus trips are organised to take the people to the penguin breeding sites. Penguins will abandon their eggs if they are disturbed and they won't return to them. The egg without incubation will not hatch. RZSS and Falklands Conservation have worked with the landowners to try to manage the tourism - providing proper signage about not going too close to their breeding sites and enough rangers employed to manage the crowds.
RAF Tornado plane (Falkland Islands)	Falkland Islands is still a war zone as peace has never been declared between UK and Argentina over the ownership of the islands. Since the Falklands War in 1982, a military presence is on the island with RAF, Navy and Army personnel. The RAF regularly fly the tornado planes around the airspace. There is an agreement on how low these planes are meant to fly in order not to disturb the penguin breeding sites. Unfortunately, now and again, there has been some low level flying.

Some useful websites:

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) -

<http://www.cites.org/>

TRAFFIC -

<http://www.traffic.org/>

Marine Stewardship Council (MSC) -

<http://www.msc.org/>

The Fairtrade Foundation-

<http://www.fairtrade.org.uk/>

RSPB - Save the Albatross-

<http://www.rspb.org.uk/supporting/campaigns/albatross/>