



CITES 2002

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WWF FACTSHEET

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Musk deer

Moschus spp.

I. Species Facts

History and distribution

Musk deer are small members of the deer family with a head-to-body length of 86-100 cm and a weight of 13-18kg. They are solitary animals and are especially active at night-time. They are recognisable by their distinctive jumping movement – more like the steps of a kangaroo than a deer. Musk deer do not have antlers. Rather they have elongated upper canine teeth, which in males can be up to 10cm long and protrude beneath the upper lip.

Musk deer occur in at least 13 countries in Asia including the Russian Far East. The Siberian musk deer (*Moschus moschiferus*) lives in China, Mongolia, North and South Korea, Russia, Kazakhstan and possibly Kyrgyzstan. The Forest musk deer (*M. berezovskii*) occurs in China and Vietnam. The Alpine and Himalayan musk deer (*M. chrysogaster* subspecies) are found in the western region of the Himalayas, from Afghanistan and Pakistan to China, India and Nepal. The Black musk deer (*M. fuscus*) lives in the eastern Himalayas in Bhutan, China, India, Myanmar and Nepal.

The timidity of musk deer, combined with their remote habitats, means that there are very few accurate population estimates. However, due to the large illegal trade, musk deer populations are believed to be declining across much of their range. Scientists believe that the total global population is likely to be between 400,000 and 800,000. The largest numbers of musk deer are found in China, Russia and Mongolia. In China, most experts believe there are approximately 100,000 animals. In Russia, the population status is very uncertain, and varies according to province. Some independent experts say that there are around 70,000 while the Russian government estimates about 150,000 animals. No recent data is available from Mongolia.

The word 'musk' derives from the ancient Indian word for testicles. This probably alludes to the musk sac of the male musk deer, which is located close to the male genitals. The price of a kilo of musk is up to US\$50,000, more than five times the price of gold. Musk deer have been hunted for centuries in order to harvest these glands, which, in the live animal, may play a role in attracting females in heat. Musk is highly prized in Traditional East Asian Medicine (TEAM) which uses musk in more than 400 pharmaceutical preparations to treat illnesses ranging from heart disease to diseases of the nervous system. TEAM accounts for more than 90% of the total musk market. In former times the remaining amount was used by the European perfume industry – around 10kg of musk was used by the French industry each year. However,



since 1999 the European Union has imposed an import ban for musk from China and Russia as a precautionary measure for species conservation.

Threats to musk deer

Populations of musk deer are declining in nearly all countries where they occur. This decline is thought to be particularly dramatic in Russia and China. Following the break-up of the USSR, enforcement of regulations protecting musk deer has weakened considerably, and some Russian experts believe that the Russian population now may be only half the size it was 10 years ago. While some poaching is taking place in refuges and reservations, most takes place in hunting areas where there is now only weak control of hunting levels.

The small size of the musk gland means that it is easy to hide and transport, thus making detection of smuggling extremely difficult. Indiscriminate hunting methods such as traps mean that around three to five musk deer are killed for every male with a musk pod, weighing approximately 15-25 grams. This equates to the killing of up to 160 musk deer in order to obtain one kilogramme of musk.

Musk deer, like many other species, are also threatened by loss of their habitat in nearly all parts of their range.

II. Musk deer and CITES

Current status within CITES

The international trade in musk deer and its products has been controlled by CITES since 1979 when musk deer populations in Afghanistan, Bhutan, India, Myanmar, Nepal and Pakistan were listed in Appendix I, and other populations in Appendix II.

Decisions at the 11th Meeting of the Conference of the Parties to CITES

At CoP 11, India, Nepal and the USA proposed up-listing all populations of musk deer from Appendix II to Appendix I. This proposal was withdrawn and, as recommended by WWF programme of WWF and TRAFFIC – the wildlife monitoring network (a joint programme of IUCN and WWF), a CITES Resolution and four decisions to promote better conservation and sustainable use of musk deer were adopted.

III. WWF's role in musk deer conservation

At CITES CoP 11, WWF and TRAFFIC recommended actions for better conservation and sustainable use of musk deer. These were largely adopted by the CITES Parties, in the form of Resolution Conf. 11.7 on 'Conservation of and trade in musk deer.' This Resolution urges all Parties, particularly musk deer range, consuming and transit countries, to take immediate action in order to reduce demonstrably the illegal trade in musk deriving from wild musk deer by:

- Introducing innovative enforcement methods in range and consumer States and, as a matter of priority, strengthening enforcement efforts in key border regions;
- Pursuing the development of a clear labelling system for products containing musk, and the development and dissemination of forensic methods to detect natural musk in medicinal and other products;
- Encouraging all range States and consumer States that are not party to CITES to accede to it at the earliest possible date in order to improve international trade control of raw musk and products containing musk;

- Working with musk consumers to develop alternatives for raw musk in order to reduce demand for natural musk, while encouraging the development of safe and effective techniques for collecting musk from live musk deer; and
- Developing bilateral and regional agreements for improving musk deer conservation and management, strengthening legislation, and strengthening enforcement efforts.

WWF is dismayed to note that this Resolution has so far led to little substantive action. These vital actions to combat illegal harvest and trade in musk, which is the main reason for the continuing decline of musk deer populations in the wild, have not been taken. WWF strongly urges the implementation of these recommendations to combat the ongoing illegal killing and trade of musk deer and its damaging consequences for these vulnerable species.

WWF and TRAFFIC are currently engaged in investigations and research related to musk deer, including examination of harvest and trade in several musk deer range countries, including Russia and Mongolia. Additionally, WWF supports conservation work in many musk deer range states, including China, Nepal and India.

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- conserving the world's biological diversity
- ensuring that the use of renewable resources is sustainable
- promoting the reduction of pollution and wasteful consumption.

WWF International
 Species Programme
 Panda House, Weyside Park
 Godalming, Surrey GU7 1XR
 United Kingdom
 E-mail: information@wwf-species.org
www.panda.org/species