Tiger genome to help big-cat conservation

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A Siberian tiger licks an ice cube to cool off in Guaipo Siberian Tiger Park in Shenyang, northeast China's Liaoning province on August 12, 2013.

South Korean scientists said on Tuesday they had carried out the first DNA analysis of the tiger and four other great felines in a project to help critically-endangered cats to survive.

A team led by Jong Bhak of the Personal Genomics Institute in Suwon unravelled the genome of the Amur tiger, and compared it against those of a white Bengal tiger, the African lion, a white African lion and the

snow leopard.

The comparison yielded a string of genes highlighting shared characteristics among these close but distinct species.

They include common genes pointing to extreme muscle strength and an ability to metabolise a "hypercarnivorous" diet.

There are also variants accounting for differences in fur colour and, in the case of the snow leopard, the ability to adapt to high, icy habitats.

The genomes, reported in the journal *Nature Communications*, point to a "rich and diverse" data source for helping conservationists, Bhak's team said.

Of the nine subspecies of tiger, they reported, four were wiped out in the wild in the last century—the Javan, Balinese, South China and Caspian tigers.

"The current estimates of wild tigers range from just 3,050 to 3,950 individuals," they said.

"It is postulated that without conservation measures, tigers will soon become extinct in the wild."

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