

## #SKIN-CARE

# Antioxidant-rich Foods

Include these in your diet for a radiant complexion



In the quest for healthy, glowing skin, consider antioxidant-rich foods as your best ally. What do antioxidants do? The mighty compounds battle free radicals that wreak havoc on our skin cells. Incorporating these anti-ageing foods into your daily diet not only rejuvenates your complexion and hair but also maintains your overall health. Here's how you can make the most of them.

### Cocoa

Who knew cocoa could benefit your health so much? This superfood is packed with flavonoids, which are powerful antioxidants that combat cell ageing. Additionally, it enhances blood circulation which gives us brighter, healthier skin. The best part? You can indulge in its benefits through dark chocolate. Just be sure to choose varieties with high cocoa content to fully reap its rewards.

### Green tea

Green tea has numerous health benefits, one of which is that it has powerful natural antioxidants that shield our bodies from free radicals and reduce inflammation. Regularly drinking green tea can enhance skin elasticity and prevent premature ageing, too.

### Berries and blackberries

Fruits like strawberries, blueberries, blackberries, and raspberries are antioxidant powerhouses, rich in polyphenols and anthocyanins. Packed with vitamins A, C, and E, phenolic acids, and fibre, these low-fat, low-calorie berries boost brain function and cardiovascular health. Plus, they're delicious. Add them to your smoothies, and yogurts, or enjoy them as a fresh snack.

### Carrots

Carrots are renowned for their high beta-carotene content, an antioxidant that our bodies convert to vitamin A. This essential nutrient maintains healthy skin and protects against signs of ageing, such as wrinkles and dryness. Add carrots to your salads and soups or eat them raw.

### Tomato

Tomatoes are one of the best antioxidant-rich foods, boasting an exceptionally high vitamin C content. Just one toma-



to provides over 60% of our daily requirement. Rich in vitamins A, B1, and B6, they are also an incredible source of lycopene, which helps protect your skin from sun damage and enhances cardiovascular health. You can have them as a tangy soup or add them to stews or salads.

### Spinach

Spinach is packed with natural antioxidants like lutein and zeaxanthin, along with high levels of protein, vitamins C and E. These components act as a shield against UV radiation, reduce inflammation, and improve the overall appearance of your skin, helping you look younger. Add a handful to your salads or juices and experience the benefits.

### Red grapes

Grapes are rich in antioxidants. Their skin contains resveratrol, a compound that is known to help prolong cell lifespan. Additionally, grapes are rich in vitamin C and other polyphenols that combat signs of ageing and maintain a smooth, luminous complexion.

### Beets

Beets are another superfood that should be a staple in your diet. Packed with antioxidants like alpha-lipoic acid, beets help slow ageing, improve cell regeneration, and keep your skin smooth and firm. Additionally, their rich nitrate content improves blood circulation, giving your hair a natural, healthy shine.

### Kiwi

The humble kiwi packs a punch in terms of its antioxidant capacity. Loaded with vitamin C, E, and other compounds, it shields the skin from environmental damage while enhancing elasticity. Moreover, kiwi aids in promoting healthy digestion, crucial for maintaining a radiant complexion. Incorporate this nutrient-packed fruit into your juices or chop one up and eat it after breakfast.



# Loosing Lupine

"I have never seen or heard about a wolf in the Sundarbans, either on the Indian or the Bangladeshi side. I have checked previous records and there has been no sighting, previously," said Mukherjee. "Wolves travel a long distance when they disperse. They can go for hundreds of kilometres. The closest wolf population from the Sundarbans is about 300-350 kilometres away in Purulia. This animal could have strayed or dispersed into the Sundarbans from there," Y. V. Jhala, one of India's foremost canidae (dog family) experts told us.



Anjali Sharma  
Senior Journalist & Wildlife Enthusiast

An Indian Wolf (*Canis lupus pallipes*) has been photographed in the Indian part of the Sundarbans for the first time, sending conservation circles in West Bengal and in other parts of the country into a tizzy.

"We were on a tour. It was late evening. Since it was already sundown, we could not enter the forest proper. Hence, we went to the buffer zone. I had heard from my local guide, Mrityunjay Mondol that some villagers had seen an alien-looking animal in the area which resembled a Golden Jackal (*Canis aureus*). We went to check. While travelling through an area called Jyotirampur, called by locals as Paakhi jangal (Bird forest), our guide showed us the animal. We shot a few photos and the creature went back into the forest. Then, it came out again and we clicked some more shots. The



Indian Wolf photographed in the Sunderbans for the first time.

whole process went on for about 15 minutes. Because it was sundown, we returned back," Riddhi Mukherjee, a wildlife photographer said.

"I have never seen or heard about a wolf in the Sundarbans, either on the Indian or the Bangladeshi side. I have checked previous records and there has been no sighting, previously," said Mukherjee.

"Wolves travel a long distance when they disperse. They can go for hundreds of kilometres. The closest wolf population from the



At that age, you cannot introduce it. If it would have been a pup or a juvenile, then introduction would have been possible," he said. He added that an Indian Wolf, usually used to arid scrub grasslands, could survive in a mangrove forest. "It can survive. However, this animal will not live in the mangroves proper but on the outskirts."

Sundarbans is about 300-350 kilometres away in Purulia. This animal could have strayed or dispersed into the Sundarbans from there," Y. V. Jhala, one of India's foremost canidae (dog family) experts told us. Jhala also discounted any possibility of the wolf having been forcibly introduced into the area. "It is a full-

grown adult male. At that age, you cannot introduce it. If it would have been a pup or a juvenile, then introduction would have been possible," he said. He added that an Indian Wolf, usually used to arid scrub grasslands, could survive in a mangrove forest. "It can survive. However, this animal will not live in the mangroves proper but on the outskirts."



## #SIDELINED

species living there find it difficult to attain the status of flagship species.

For starters, we have two types of wolves in India. The Indian Wolf or Peninsular Wolf is the most familiar one, distributed in a few remaining grasslands of central and southern India. The Indian wolf is recognised as a distinct subspecies of the Grey Wolf, as *Canis lupus pallipes*. Another lesser-known lineage of wolves is found beyond the heights of the Himalayas. As one would expect, wolves in the Himalayas show clear distinction from the peninsular ones. Environmental factors and geographical barriers, barring intermingling of both the wolves, would originate such differences. The Indian wolf is one of the smallest (weighing on an average 25 kgs) and shortest in height, very lean and slender in appearance, and has a slim black tipped tail and brown-grey shades of coat.

Wolves in the Himalayas, on other hand, are larger (weighing about 35 kgs), with a broader skull, longer muzzle and more whitish coat. A bushy tail, thick fur and a longer crest of black hairs on the shoulders also give them the name of Woolly Wolf. In India, these wolves are spread across the Trans-Himalayas along the borders with Tibet (China). The best place to sight these wolves is Ladakh and Spiti. Their presence is reported from Uttarakhand, Nepal, Sikkim and Arunachal Pradesh as well.

Wolves in the Himalayas have generated great interest in the scientific community for their unique evolutionary history and uncertain taxonomic status. Although, they were first described by British naturalist Brian Houghton Hodgson in 1847, a consensus on their nomenclature is yet to be reached. These wolves kept themselves hidden in the high-altitude valleys, dodging



## Cow Appreciation Day

Cow Appreciation Day is an event that has been designed to raise awareness about cows and appreciate everything that they do! A lot of people dress up like cows for free food, and that's just the start of it! So, this is a great time to have a spare cow suit handy. But it is also a time to be reminded of all of the amazing products that cows bring to the world, and a lot of people like to raise a glass (of milk, of course!) for this special occasion.



Mongolia.



A Himalayan Wolf. Credit: Smanla Tsering.

the attention of scientists and explorers for long. Genetics studies from 2003 to 2007 discovered new findings about these wolves, bringing them into spotlight. Grey wolves are considered to have originated about 800,000 years ago. This is the same time when the Himalayas were rising. Scientists suspected that these wolves were trapped in the Himalayas and



There are complaints that, inflationary trends have made a mockery of the money that was given to bounty-hunters, the main controllers of the wolf population. The 100 roubles that was given years ago for killing a male wolf, for instance, would keep hunters in high spirits as it would fetch them 30 bottles of Vodka.

evolved separately since then.

The grey wolves, in rest of the world, evolved into different subspecies including the domestic dog, making them a separate 'clade'. Clade is a term used by biologists to describe organisms believed to have common ancestors. Wolves in the Himalayas didn't participate in a common history of the grey wolf lineages and dogs. Scientists argued that these wolves should be recognized as a separate species, *Canis himalayensis*, popularly called the Himalayan Wolf and locally known as Changku.

Wolf history is a complex affair and the ability of wolf subspecies to interbreed has challenged scientists. The comparatively recent expansion of the grey wolf in eastern Asia brought further complexities where older lineages mixed with the newer ones. The Tibetan Wolf (*Canis lupus chanco*) in the north and the grey wolf (*Canis lupus campestris*) in the west, as close as the Gilgit-Baltistan region of Jammu and Kashmir, blurred the lines for the Himalayan wolf. A University of Oxford researcher, Geraldine Werhahn, recently reported the

genetic markers of Himalayan wolves from as north as Qinghai Lake in China. A study on the howling structure of the Himalayan wolves, compared to wolves from other parts of the world, found that unlike other wolves, Himalayan wolf howls are of short duration and have unmodulated frequencies. The mean frequency of the Himalayan wolf howl is much lower than that of other wolves, allowing them to communicate over long distances in speedy winds. Howl structure study, yet again, emphasised on a different evolutionary history of the Himalayan wolf.

Although, a precise and robust estimate of the Himalayan wolf is unavailable, a study in 1995 concluded that there could be a population of 350 such wolves left in the wild. A team of scientists at the Wildlife Institute of India, Dehradun, has been studying these wolves in the Indian part of the Himalayas. They found that Himalayan wolves have huge movement ranges, covering about 2000 sq. kms area. Compared to this, Indian wolves are known to have home ranges of 150-200 sq. kms. The study on modeling their distribution exhibits that wolves have quite limited suitable habitat. Explorations on their move-

ment and distribution ecology leave us with a rough estimate of 70-90 wolf packs functioning in the Indian trans-Himalayan landscape. The precarious status of the Himalayan wolf population keeps them constantly under risk. Research shows that Himalayan wolves acquire a major portion of their diet from livestock. In a



Himalayan Wolf, Annapurna Conservation Area.

landscape where wild prey is rare and pastoralism is a widespread practice, perhaps, a livestock diet is only survival strategy. But it comes at the cost of retaliatory persecution, which is the biggest challenge. The Himalayan wolf is mainly concentrated in the valleys and shares its habitat with humans. Rapid habitat modifications, development of human infrastructures and alteration of grasslands are other threats. Another recent danger that is threatening the future of this unique lineage is the increasing number of stray/feral dogs in the landscape. Not only are they over-taking wolf territories in the competition, hybridisation could potentially change the genetics and unique adaptations that Himalayan wolves have developed. The National Red List of Nepal has recently listed them as Critically Endangered. However, the taxonomic debate keeps them internationally unrecognised. The Himalayan wolf holds a unique status in the rich natural heritage of India. Taking a cue from Nepal's decision, we must also move in the direction of providing them right recognition and conservation.

Contrary to our situation, the wolf is quite literally at the Russian door. The wolf population in the country has risen from 22,500 in 1990 to 30,000 last winter. Animal-watchers see a close link between the rise in lupine numbers and the economic crisis in the country. The situation is so different, that there are complaints that, inflationary trends have made a mockery of the money that was given to bounty-hunters, the main controllers of the wolf population. The 100 roubles that was given years ago for killing a male wolf, for instance, would keep hunters in high spirits as it would fetch them 30 bottles of Vodka. Today, it leaves them stone-cold sober, and asking for more.

rajeshsharma1049@gmail.com

## #CANINE

# Why Do Dogs Tilt Their Heads?

The endearing behaviour is well-known, but few researchers have investigated the reasons why dogs tilt their heads. A recent study offers some clues.



You already know the look. Your dog is staring up at you, its eyes shining with curiosity and ears perked up. And, of course, the pup's head is cocked slightly to one side in response to the sound of your voice. It's just one of the many charming quirks that dogs possess. And a quick Google search will offer up plenty of theories for their adorable head-tilting behaviour. For example, some veterinarians suggest that dogs tilt their heads towards their owners to show that they are engaged and prolong the interaction, similar to the way that humans nod during a conversation to show that they're listening. But surprisingly, little research has investigated the reasons behind it. A recent study, however, may offer some hints, and suggests that the head-tilt could be a sign that your canine companion is trying to better understand you.



### Studying the Head-Tilt

Researchers have found that plenty of animals, fish, reptiles, birds, mammals and even humans, process sensory information asymmetrically, meaning that they use the left or right side of their brain. Other studies demonstrate that dogs display this asymmetry, too, often wagging their tail to one side or sniffing with one nostril over the other.

But when it comes to head tilting in dogs, the scientific literature is far scarcer. "It's a very

### An Unexpected Discovery

Sommese says that the finding came as a surprise, the scientists stumbled upon it while conducting a small study of gifted 'word learner' dogs. While most dogs have a hard time learning the names of even two toys, these seven special pups could remember and retrieve at least 10 different toys, by name, after learning them from researchers. What's more, the team saw that the pups,

common behaviour in dogs," says Andrea Sommese, an Animal Behaviour researcher at Eötvös Loránd University in Hungary. "There are a lot of anecdotes and stories and all that, but there was no scientific publication on this." That is, until Sommese and his colleagues found that 'gifted' dogs, meaning those that could memorize the names of a number of different toys, frequently cocked their heads to the side before correctly fetching a specific toy.

with a penchant for playing, cocked their heads after being prompted with a command (bring rope) more often than their less-skilled peers. That's when Sommese and his colleagues decided to dig deeper. "All of us noticed this," he adds. "So, we started talking about it, because it was getting more and more consistent. And then we decided to analyse it."

### Tilting Their Heads

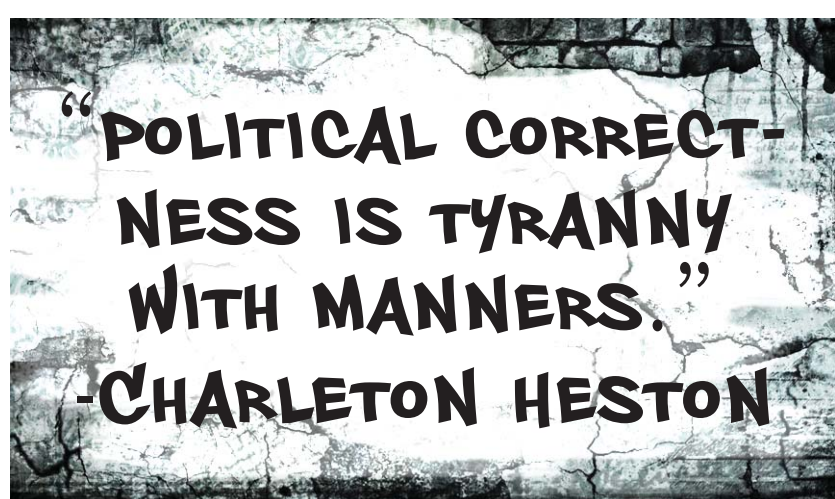
In the 2021 study, which took place over several months, the scientists compared the retrieval abilities of the seven 'gifted' dogs, all of them border collies, with those of 33 'typical' dogs. Sommese says that they designed the experiment with the dogs in one room and the toys in another. "So (the dogs) don't actually see the toys," he continues. "And when the owner asks for a toy by name, (the dog) hears the word, the stimulus, and they're like, 'Okay, let me think about this. What is it?' And then they go and fetch it." The

study authors found that when prompted by a command from their owner, the gifted dogs cocked their heads 43 per cent of the time, compared to just 2 per cent of the typical dogs. Thus, the head tilt could be a sign of mental processing meaning that the pups are likely paying attention or even matching the toy's name with a visual memory of it in their head. "The head tilt is a way to think about something," adds Sommese. "To get what we mean by 'mental representation' of the item or the toy."

### Other Reasons For The Tilt

Monique Udell, an Animal Behaviourist, who studies human-animal interactions at Oregon State University, notes that there could be other explanations for the head-tilting behaviour beyond concentration and recall. "Maybe, it helps them see better or hear better, and get a different perspective," Udell says. "Lots of species will move their heads or bodies to respond to important stimuli, in order to get a better sense of what that thing is." Going forward, she hopes that scientists will investigate whether different breeds of dogs tilt their heads in response to other factors in their environment, as well.

## THE WALL



## BABY BLUES



By Rick Kirkman & Jerry Scott

## ZITS



By Jerry Scott & Jim Borgman