राष्ट्रदुत

Franz Josef Land

none of the typical symptoms of a

severe infection. Similarly, vitamin

## Don't Touch Be Cured

Touch Me Not (Mimosa pudica): Nature's Sensitive Wonder and Its Remarkable Benefits



Not' or Mimosa pudica is a fascinating botanical marvel famous for its rapid response to touch. When gently brushed or shaken, its delicate leaves fold inward and droop as if shy or recoiling from contact, earning it nicknames like the sensitive plant' or 'shy plant.' But beyond this intriguing behavior, Mimosa pudica offers an array of benefits, medicinal, ecological, and more, that make it a plant worth knowing.

## **Medicinal Properties and Health Benefits** Mimosa pudica has a rich his-

tory in traditional medicine. especially in Ayurveda, Chinese, and folk healing systems. Various parts of the plant, leaves, roots, and stems, are used to treat numerous ailments. Some key health benefits include:

- Wound Healing: Extracts from Mimosa pudica have antimicrobial properties that help prevent infection and promote faster heal ing of cuts and wounds.
- Anti-inflammatory anti-inflammatory compounds, useful for treating swelling and pain in conditions like arthritis.
- Antioxidant Properties: idants that protect the body from harmful free radicals, supporting overall health and potentially reducing the risk of
- chronic diseases Digestive Aid: Mimosa pudica is traditionally used to treat digestive issues, including diarrhea, dysentery, and intes-
- Diabetes Management: Some studies suggest in may help regulate blood sugar levels, making it beneficial for people with diabetes
- Nervous Support: It is believed to have calming effects on the nervous system, helping with anxiety and insomnia in traditional

## **Ecological and Environmental Benefits**

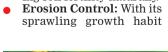
Mimosa pudica is a nitrogen-fixing plant, which

means it helps enrich soil

by converting atmospher

ic nitrogen into forms that plants can absorb, improv-

ing soil fertility naturally





and extensive root system it helps in preventing soil erosion, especially in disturbed or degraded lands.

**Natural Indicator:** Its sensitivity to touch makes it a natural bio-indicator of environmental stimuli. sometimes used in scientific studies on plant response and behavior.

## **Unique Behavior: The Science Behind 'Touch** Me Not'

The rapid folding of its leaves is not just a curiosity but a defense mechanism. When touched, the plant releases potassium ions and water moves out of the cells in the pulvini (the joint-like thickening at the base of the leaf stalks), causing the leaves to fold quickly. This sudden movement can deter herbivores or reduce damage from harsh environmental

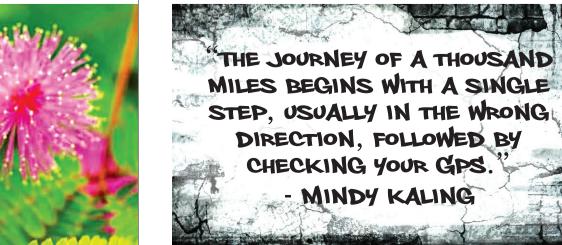
## **Growing and Using**

Mimosa pudica is easy to grow and often kept as an ornamental or educational plant, especially for children, due to its unique interactive behavior. Besides its aesthetic and scientific appeal, the plant can be harvested for its medicinal benefits but should be used cautiously and under guidance since more research is needed on its efficacy and safety. The 'Touch Me Not' plant is a remarkable example of nature's ingenuity, blend ing fascinating behavior with practical benefits. From healing properties to environmental contributions, Mimosa pudica offers much more than its shy demeanor, proving that

sometimes, the most sensitive

beings have the strongest





# Salomon Andrée's III-Fated **Arctic Balloon Expedition**

of dynamite, and several other

prominent supporters. With these

funds, Andrée ordered a 20-meter

three-layer silk balloon called

Örnen ('The Eagle') from Paris. The

balloon basket was designed to

accommodate three adults, with

sleeping quarters in the floor area,

along with some of the stores and

provisions. Because of the highly

flammable hydrogen in the balloon,

cooking could not be done in the

basket itself. Instead, a modified

Primus stove, designed by a friend

of Andrée's, was used. It could be dangled eight metres below and

then lit from the basket at a safe dis-

volunteers, Andrée selected two

companions: Nils Ekholm, a forty-

seven-year-old meteorologist who

had previously led an expedition to

Spitsbergen, and Nils Strindberg. a

An initial attempt to launch the

balloon was made in the summer of

1896 from Danes Island, but

unfavourable winds prevented the

expedition from starting and

Andrée was forced to call off the

launch. During the three weeks that

Andrée and his team spent on

Danes Island, Nils Ekholm studied

the balloon and discovered that it

was leaking too much gas. When he

raised concerns about the balloon's

inability to maintain buoyancy, he

was hastily dismissed by Andrée.

Ekholm later learned that Andrée

had been secretly topping up the

hydrogen to give the impression

Why did Andrée choose to hide the

balloon's flaws, knowing that its

integrity was vital to the safety of

both his crew and himself? Some

writers suggest that Andrée had

become a prisoner of his own suc-

cessful fundraising campaign. The

sponsors and the press were track-

ing every delay, reporting on every

setback, and clamouring for results

off. Andrée found himself under

immense pressure to deliver. In his

1967 novel The Flight of the Eagle,

author Per Olof Sundman theo-

rized that Andrée could not bear to

let the press report that he had mis-

judged the prevailing wind direc-

tion, had miscalculated in ordering

the balloon, and now needed a new

the expedition, and his place was

quickly filled by Knut Frænkel, a

and Frænkel, returned to Danes

Island in the summer of 1897 for a

second attempt. This time, the

winds were favourable. On July 11,

the three doomed explorers climbed

aboard the already heavy basket,

and Andrée gave the order to cut

the ropes. Almost immediately,

problems began. The drag ropes,

which Andrée had hoped would sta-

bilize the balloon and prevent it

7-vear-old engineer

Ekholm refused to take part in

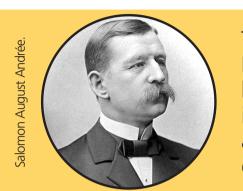
Andrée, along with Strindberg

When the first attempt was called

that the balloon was sound.

twenty-three-year-old assistant pro-

fessor of physics.



• KAUSHIKI PATWARDHAN

y the late 19th century.

the North Pole

remained one of the

last great geographic

mysteries. The quest to

and dangerous frozen

ocean became a lifelong

explorers around the

Numerous adventurers

threw themselves at the challenge.

often at great cost. They faced

untold hardships, failure, and even

death. Like many spirited explor-

ers, Salomon August Andrée, a

Swedish engineer and aeronaut,

was bewitched by the Arctic. But

unlike previous expeditions

Andrée, a fervent believer in the

power of science and technology.

was convinced that success could be

achieved not by traveling through

the sea or over ice by sled, but by

flying above it in a hydrogen bal-

loons began in 1876, after a chance

encounter with American balloon-

ist John Wise, whom he met while

traveling to the United States for

the Centennial Exposition in

Philadelphia. After returning to

Sweden, Andrée opened a machine

shop. When that venture failed, he

sought and found employment as an

assistant at the Royal Institute of

Technology in Stockholm. He also

participated in a Swedish scientific

expedition to Spitsbergen, an island

in Norway's Arctic Syalbard archi-

Patent Office as an examiner, evalu-

ating patent applications, assessing

the novelty and technical feasibility

of inventions, and ensuring compli

ence as a patent engineer played a

significant role in shaping how he

planned and approached his 1897

Arctic balloon expedition. Working

with the cutting-edge technology of

the late 19th century fostered in

him a belief that human ingenuity

could overcome natural obstacles.

He applied this mindset directly to

Arctic exploration, convinced that a

ance with patent laws.

Later, he joined the Swedish

Andrée's professional experi-

Andrée's fascination with bal-

balloon, outfitted with technical

improvements, could succeed

where brute force and traditional

On February 13, 1895, Andrée stood

before the Royal Geographical

Society and delivered a passionate

speech, declaring that an expedi-

tion to the Arctic offered Sweden a

chance to claim a place on the world

stage. He thrilled the audience of

geographers and meteorologists by

proposing that the feat could be

accomplished by balloon. He gave a

glowing, optimistic account of how

easily such a balloon could be con-

structed and equipped with a novel

steering method of his own design.

balloons drifted with the wind. But

Andrée had developed a special sys-

tem of heavy drag ropes that would

lie on the ground and drag through

water or across the ice, slowing the

craft enough to be steered with

that Arctic summer weather was

ideal for ballooning. The 24-hour

sunlight, he claimed, would allow

him to fly and make observations

around the clock, effectively halv-

ing the time required for the voy-

age. He also emphasized that the

drag-rope steering technique was

particularly well suited to a region

where the ground, composed of ice,

was 'low in friction and free of veg-

etation.' He explained that the min-

imal precipitation in the area posed

loon, as any precipitation or ice will

mism convinced his audience, an

audience largely disconnected from

the realities of Arctic summer

storms, fog, high humidity, and the

ever-present threat of ice formation

on aircraft. As Andrée left the stage,

one witness wrote that the audience

'cheered until the great hall of the

Andrée's project received financial

backing from King Oscar II of

Sweden, Alfred Nobel, the inventor

no threat of weighing down the bal-

be blown off the balloon's smooth

surface by the wind.

Colonial Institute rang.

A King's backing

Andrée assured the audience

Typically, hot air and hydrogen

Sweden has a chance

methods had failed.

The remains of Andrée's expedition were discovered thirty-three years later, in 1930, by a Norwegian hunting party. While searching for water, two sealers came across Andrée's boat near a small stream, frozen under a mound of snow and filled with equipment, including a boathook engraved with the words "Andrée's Polar Expedition, 1896." When a search was organized, the bodies of all three crew members were found, along with diaries, Strindberg's photographic film, his logbook, maps, and other artefacts.



orld Freedom Day commemorates the signing of the Compensated Emancipation Act in 1862, which led to the abolition of slavery in the United States. The day is a reminder of the struggles endured by those who fought for liberty and equality, celebrating the triumph of human rights over oppression. It encourages reflection on the ongoing fight for freedom worldwide, inspiring individuals to value and protect civil liberties. Through educational events, discussions, and public commemorations,

World Freedom Day honors courage, resilience, and the enduring spirit of justice that continues to shape societies.

The balloon Örnen lies where it crashed on the ice pack. Photo by expedition member, Nils Strindberg.

ilous situation. Andrée remained

optimistic. On July 13, two days

after launch, he sent a message by a

homing pigeon, addressed to the newspaper *Aftonbladet*. The mes-

to the 'Aftonbladet,' Stockholm. 13

July, 12.30 p.m., 82 deg. north lati-

tude, 15 deg. 5 min. east longitude

Good journey eastwards, 10 deg.

south. All goes well on board. This

is the third message sent by pigeon.

after the members of the expedition

perished, tells a story of increasing

desperation. The balloon was strug-

gling. It was soaked by rain.

weighed down, and losing hydrogen

However, his diaries, found long

he question of what exactly killed the men has long

attracted both interest and controversy among

scholars. The most likely explanation is that they died of

exposure and exhaustion, the most common causes of

leath among polar explorers. However, other factors

may also have played a role, such as trichinosis.

"The Andree Polar Expedition



**#ILL FATED** 

The crashed balloon on the ice pack on 14 July, 1897

drifting uncontrollably, became entangled due to their great length, several hundred meters. As they twisted around on the ice, they pulled at the screws securing them to the basket, causing several ropes to detach. The remaining ropes dragged the basket down into the

n initial attempt to launch the balloon was made in the summer of 1896 from Danes Island, but unfavourable winds prevented the expedition from

About 530 kilograms of rope were lost, and the explorers were forced to dump 210 kilograms of sand to lift the basket out of the water. In total, 740 kilograms of essential weight was lost in the first few minutes. Before it had even cleared the launch site. Eagle had been reduced from a supposedly steerable craft to an ordinary hydrogen balloon with a few ropes

starting and Andrée was forced to call off the launch During the three weeks that Andree and his team sper on Danes Island, Nils Ekholm studied the balloon. through the millions stitching holes in the fabric of the balloon.

After the balloon rose, it travelled about 400 km north-east in 10 hours. when loss of gas and cooling by cloud brought it down and within the range of the dangling

dangling from it, entirely at the

mercy of the wind. The crew had no

means of steering and too little bal-

last to ensure stability. Lightened

feet), a height for which they

had not planned. At that

altitude, lower air pres-

sure hastened the leak-

the balloon rose to 700 meters (2.300

on a protruding ice formation, causing the balloon to become stationary. Strindberg and Frænkel had some much needed rest, while Andrée wrote in his diary: "It is not a little strange to be floating here above the Fraenkel (left), polar sea.' Despite their per-

Salomon August Andrée (sitting) and Nils Strindberg



Knut Frænkel (left) and Nils Strindberg stand over a shot polar bear

drag ropes. Then, the wind failed

and it came to a complete stop for

an hour. When the wind picked up

again, the balloon travelled almost

due west for about 180 km in 19

hours, occasionally stopping

and continually bumping

The camp at the 'Eagle' landing site. Work on installation of the boat's frame.

rapidly. The crew was constantly jettisoning ballast and supplies to maintain altitude

On July 14, after another 230 km of bumpy ride since their last stoppage, the crew unexpectedly opened the valves and the balloon descended onto the ice. At eleven minutes past eight in the morning, "we umped out of the balloon," wrote Andrée. Why Andrée chose to bring down the balloon so abruptly, when at last it was sailing high and on the desired course, remains a mystery, The goal of reaching the North

Pole was abandoned, and the crew sensibly decided to head southwest towards Cape Flora in Franz Josef Land, where a large depot of supplies had been laid. Since it was not ossible to carry all their proviions, they were forced to leave pehind much of their food. Instead they hunted and ate seals, walruses. and even polar bears along the way. The trek across the ice was more lifficult than they had anticipated. At times, they built bridges by bringing ice floes together. metimes, they used axes to carve tracks for the runners of their sledges. On occasion, the ice gave way beneath them, plunging both men and sledges into the freezing

After several days of marching, the men realized that the ice was drifting backward faster than they were advancing, making the journey futile. On August 4, they gave up heading east and decided instead to turn southwest towards a smaller depot on the Seven Islands. On April 17, Andrée wrote, "Our

journey today has been terrible. We have not advanced 1,000 meters but with the greatest difficulty have dodged on from floe to floe." They set out fishhooks baited with bear meat but caught nothing. One evening, Andrée suggested they try the bear meat raw, and they decided tasted like oysters. They made 'blood pancakes' from bear's blood and oatmeal, fried in butter. Strindberg prepared soup from algae, which Andrée noted 'should be considered as a fairly important discovery for travellers in these

By late September, winter had begun to set in, and pulling the sleds became more difficult. Strindberg built a shelter on the ice by heaping up snow and pouring since they had left home, the men slept under a roof. On October 2, at five-thirty in the morning, Andrée woke to a thunderous crash and saw water streaming into the hut. The ice floe they were living on had split into smaller pieces. Some of their pelongings drifted off, and they had to hurry to retrieve them. Andrée's diary ends on October 2 with the entry: "No one had lost courage with such comrades, one should be able to manage under, I may say, any ircumstances.

The remains of Andrée's expedition were discovered thirty-three years later, in 1930, by a Norwegian

Map of Salomon August Andrée's Arctic Balloon Expedition of 1897. hunting party. While searching for a cookstove used in a poorly venti water, two sealers came across lated tent. Andrée's boat near a small stream. Trichinosis is considered frozen under a mound of snow and unlikely, as the diaries mention

Mossel Bay

filled with equipment, including a

boathook engraved with the words

Nordaustlandet

"Andrée's Polar Expedition, 1896." A poisoning was ruled out because When a search was organized, the the diary indicates that the men were aware of the danger and delibbodies of all three crew members were found, along with diaries, erately avoided eating polar bear Strindberg's photographic film, his logbook, maps, and other artefacts. In 2010, Swedish researcher Bea Later, scientific analysis Uusma proposed a new theory, that revealed that Andrée's diary conthe men were attacked by a polar tained additional entries made after bear. According to this hypothesis, Strindberg was killed during the what was previously thought to be the final one on October 2. These attack, while Frænkel was injured later entries had initially been illegand died shortly afterward inside ible. On October 4, the three men the tent. His body was found withbegan building another shelter. out mittens or shoes. Andrée, hav-They also saw a lowland on the ing buried Strindberg and finding sland, "a refuge if we don't drift too himself alone on the island with no far past." Andrée wrote, and in the way to leave, may have then decided to end his life using morphine. This afternoon, they observed birds fly ing towards it. The next day, they theory is supported by several moved ashore, working partly in pieces of evidence. Andrée's body

darkness beneath the northern was found in a semi-upright posi lights. That day happened to be tion, propped against a rock with Andrée's mother's birthday, and he his rifle by his side, an unlikely posture for someone killed by a bear christened their camp Mina Nearly empty morphine bottles Andrée's Place. The final diary entry is dated were discovered at the site, along Friday, October 8. Andrée wrote with Andrée's diary, which had that bad weather had kept them in been carefully wrapped in a the tent all day: "It feels fine to be sweater, hay, and balloon cloth, as if he intended to preserve it for posable to sleep here on fast land as a contrast with the drifting ice out terity in the hope that it would be upon the ocean where we constant y heard the cracking, grinding, and Coming home in a shroud din. We shall have to gather drift-

wood and bones of whales and will The remains of the three explorers were received in Stockholm with have to do some moving around when the weather permits. solemn respect on October 5, 1930. The question of what exactly King Gustaf V who was present at killed the men has long attracted the pier where the ship carrying both interest and controversy their remains docked, said: "In the among scholars. The most likely explanation is that they died of greet the dust of the polar explorers exposure and exhaustion, the most who, more than three decades ago, common causes of death among left their native land to find an polar explorers. However, other facanswer to questions of unparalleled tors may also have played a role. such as trichinosis, a parasitic dis-Today, several remnants of the expedition, including the clothing ease that they could have contracted from eating undercooked polar worn by the three men, many of bear meat. Additional theories their scientific instruments, and include vitamin A poisoning from several film canisters from Strindberg's camera, are preserved consuming polar bear liver, lead

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in the Grenna Museum.



Andree and Fraenkel work at the upside down boat.

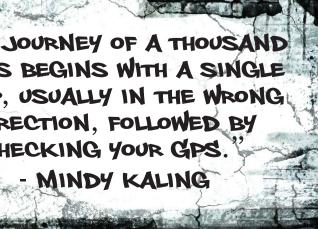
poisoning from metal cans, botu-

lism, and carbon monoxide poison

ing caused by inhaling fumes from

## THE WALL

The view of the balloon after it took off from Danes Island.



## **BABY BLUES**



Andrée and Fraenkel tug at a boat used to carry the sled between ice blocks.

## By Rick Kirkman & Jerry Scott



## HEARD LIKEOUR SHE'S FROM COUNTRY? AUSTRIA.



