



International Biodiversity Day celebrated

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Shri. James Varghese IAS, Principal Secretary (Ports) inaugurated the International Biodiversity Day function organized by Kerala State Biodiversity Board at Science and Technology Museum Hall, Thiruvananthapuram. James Varghese stressed the importance of Biodiversity preservation in sustainable livelihood and the role of BMC in conservation of local biodiversity. The



Inauguration of International Biodiversity Day celebration

function was presided over by Dr. Oommen V. Oommen, Chairman, KSBB. Dr K. P. Laladhas, Member Secretary welcomed the gathering. District co-ordinators and project fellows of Kerala State Biodiversity Board attended the programme, which concluded with the vote of thanks by G. S. Unnikrishnan Nair, Scientific officer, KSBB.

Jaiva Vaividhya Mela held at Kottayam



KSBB organized a Biodiversity Expo “Jaiva Vaividhya Mela” at Nehru stadium, Kottayam from 18th to 24th Feb 2016. More than 100 organizations participated in the exhibition and arranged over 180 stalls. Apart from photos and models depicting diversity of birds, butterflies, amphibians and reptiles, panels on marine biodiversity, biodiversity of India, Kerala, threatened flora and fauna, medicinal plants etc. attracted much attention. An array of eco-friendly products made from biological resources, solid waste management techniques etc. were also displayed. The stalls also displayed the diversity of tubers and spices through live specimens. The rice diversity of the State was also exhibited. Thousands of people visited the expo. The expo also provided platform for the sharing of experiences by Biodiversity Management Committees, farmers, traditional healers etc.

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Stop the Illegal Killing, Taking and Trade of Migratory Birds

The 2016 World Migratory Bird Day was observed around the globe on 10th May 2016, with the theme “Stop the Illegal Killing, Taking and Trade of Migratory Birds”.

Migratory birds were once synonymous with abundance, and seen as a gift coming from the sky. Historically, people have hunted wildlife for a variety of reasons – food and sport - and in the past, such activities were conducted at a scale that was sustainable. In many cases, however, this is no longer true. The methods used and the numbers taken have changed beyond measure, and the survival of the targeted species which have to face many other pressures such as loss or deterioration of habitats is in doubt. In many countries, robust legislation exists and mechanisms are in place to enforce it; in others, the rules are not followed and the authorities lack the resources or the will to implement them properly on the ground.



If once common migratory birds are to be prevented from disappearing, such as the Linnet that has lost 50% of its population since 1980, or the farmland birds with a loss of 300 million individuals in Europe over the same period, the public has to be made aware of the urgency of the threat posed by illegal hunting, taking and trade. Attitudes must change and we can no longer afford to turn a blind eye to those who flout the law and endanger our shared natural heritage. Cooperation and awareness raising have to be strengthened in order to fight illegal killing. The Intergovernmental Task Force set up by the CMS (The Convention on the Conservation of Migratory Species of Wild Animals) Secretariat is a first concrete answer to the issue in the Mediterranean region. Further actions are needed – and this shared issue should involve and bring together international organizations, governments and civil society.

Indeed decisions taken by the international community or by governments will not meet any success if they are not respected or implemented on the ground. That is where civil society has a role to play, at the local level. Let us work together to protect migratory birds from illegal killing, taking and trade!

EARTH DAY - 22 APRIL 2016

Theme: Trees for the Earth

Earth Day 2016 was celebrated on April 22, around the theme “Trees for Earth”. Our planet is currently losing over 15 billion trees each year (equivalent to 48 football fields every minute). In honour of Earth Day’s 50th anniversary in 2020, Earth Day Network announced Trees for the Earth, a plan to plant 7.8 billion trees by Earth Day 2020: one tree for every person on the planet.

Trees will be the first of five major goals Earth day Network is undertaking in honour of the five year countdown to our 50th anniversary. On their own and together, these initiatives will make a significant and measurable impact on the Earth and will serve as the foundation of a cleaner, healthier and more sustainable planet for all. Planting 7.8 billion trees, will contribute to three major goals: Mitigating Climate Change and Pollution, Protecting Biodiversity and Supporting Communities and their Livelihoods. Planting trees will also help communities achieve long-term economic and environmental sustainability and provide food, energy and income. Studies have shown that schools with tree cover have reduced asthma and lung disease rates and help students with ADHD concentrate (Attention deficit/hyperactivity disorder) for longer periods.

Tree planting has a direct correlation to reduced crime rates, increased property values, reduced litter, higher social cohesion, and a number of other social and psychological benefits.





Dr. Oommen V. Oommen
Chairman, KSBB

"It is time to put the ECO back in ECONomics & promote living with less, not more."

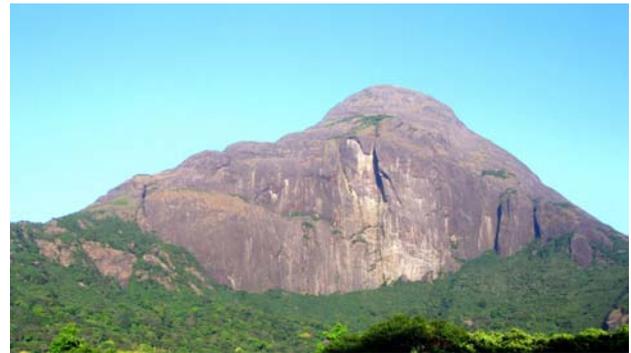
The International Biological Diversity Day 2016 was celebrated with the focal theme "Mainstreaming Biodiversity; Sustaining People and their Livelihoods" emphasising the role of biodiversity in supporting peoples' livelihoods and sustainable development in all areas of activity, such as agriculture, forestry, fisheries and tourism among others. The thirteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 13) to be held in Mexico in December 2016 will focus on the mainstreaming of biodiversity for sustainable livelihood.

The main challenge for sustainable

Agasthiyarmalai included in UNESCO's World Network of Biosphere Reserves

Home to four wildlife sanctuaries, one tiger reserve and more than 2,250 plant species, the Agasthiyarmalai Biosphere Reserve (ABR), has been recently included in the UNESCO's World Network of Biosphere Reserves. ABR, which spans the states of Tamil Nadu and Kerala, is among the seven reserves, such as Beaver Hills in Canada and Balmbangan in Indonesia, added in the list this year. Inclusion of the site in the network would be recognition of the conservation measures taken up there as well as being a status symbol, say forest officials.

ABR was included at the international coordination council of the man and the biosphere programme of the UNESCO that concluded in Peru on March 19. This was the only site considered from the Indian sub-continent by the International Advisory Committee for Biosphere Reserves during the Paris session held last year. Way back in 2001, efforts were made by the Union ministry of forests and environment to designate the region as a biosphere reserve owing to its rich biodiversity. Nearly 15 years later the UNESCO had granted a place to ABR in its Biosphere Network.



Biodiversity messages will be shown in Cinema Theatres

Soon, when you go to watch a movie, you will get to watch messages and videos on the need to protect and conserve India's biodiversity—similar to the anti-smoking campaigns that cinemas currently run.

India's National Biodiversity Authority (NBA) is set to write to all state authorities and other stakeholders to include messages and videos aimed at promoting biodiversity conservation before the start of movie shows or during intervals- said NBA Chairperson B. Meenakumari. NBA will customise the message depending upon the biodiversity concerns of a particular area and in regional languages to maximize the reach. NBA is also planning to write to schools and colleges to make students aware of the importance and value of biodiversity in India.



Mainstreaming Biodiversity; Sustaining People and their Livelihoods

development is poverty reduction. More than 40% of the poor of the country are living in the forest fringe villages, forests also meet 30% of fodder needs of the cattle population and 40% of domestic fuel wood needs of the people. The sustainable development goal adopted in January 2016 has set a target that by 2030, to eradicate extreme poverty for all people everywhere, and reduce at least by half the proportion of men, women and children of all ages living in poverty. Poverty includes lack of sustainable livelihood, hunger, malnutrition, limited access to education, social discrimination and exclusion as well as the lack of participation in decision-making. India has a poverty ratio of 21 % and is still home to a quarter of all the undernourished population in the world. Forty three per cent of Indian children under five years are underweight and 48 per cent (i.e. 61 million children) are stunted due to chronic under nutrition.

Development cannot be sustainable without considering its environmental dimensions and poverty eradication cannot be achieved if ecosystem services and natural capital are degraded. Healthy and productive soils/lands, forests, oceans and fresh water ecosystems, and the services they provide is critical for attaining the sustainable livelihood. Better use of agricultural biodiversity can contribute to more nutritious diets, enhanced livelihoods for farming communities and more sustainable farming systems. Protection of terrestrial and aquatic ecosystems can be achieved only by sustainable forest management, conservation of marine and inland waters, ecosystems, restoration of degraded lands, biodiversity conservation, and sustainable use of natural resources. An integrated agenda of land use, food security, biodiversity conservation, that also provides for access to safe drinking water, sanitation and renewable energy while mitigating climate change is necessary.

KSBB EVENTS

- KSBB sponsored a day branding programme on May 22nd whereby messages on biodiversity conservation and sustainable utilization was aired on all stations of All India Radio in Kerala throughout the day. Dr. Oommen V. Oommen, Chairman KSBB delivered a talk on All India Radio on 14/05/2016 on the topic “Mainstreaming Biodiversity : Sustaining people and their livelihood”. The programme focussed on the role of biodiversity in supporting peoples’ livelihoods and sustainable development in all areas of activity, including economic sectors such as agriculture, forestry, fisheries and tourism among others.
- A nature camp for children was organized at Eravikulam National Park in association with Forest Department on 27th and 28th May 2016. Students from various Biodiversity clubs in Idukki district participated in the camp.
- Dr. Oommen V. Oommen, Chairman, KSBB attended a consultative meeting on ‘Biodiversity beyond national jurisdiction’ on 22nd June at Kochi for development of an international legally binding instrument under the United Nations Convention on the Law of the Sea. The meeting aimed to discuss issues of conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, marine genetic resources, sharing of benefits, area based management tools, including marine protected areas, environmental impact assessments and capacity-building and the transfer of marine technology.
- Dr. Oommen V. Oommen, Chairman, and Dr. K. P. Laladhas, Member Secretary attended the Regional Meeting of the State Biodiversity Boards held on 10th May, 2016 at NBA, Chennai
- Dr. Preetha N, Technical Associate, KSBB attended a Training Workshop on Strengthening Capacities for Transboundary Movement of LMOs organized on May 9, 2016 at Chennai by MoEF, in association with National Biodiversity Authority and Biotech Consortium India Limited. The workshop targeted to strengthen the biosafety management system in India to ensure adequate protection of human health and biodiversity from potential harm arising from all LMO related activities in agriculture. Salient features of the Cartagena Protocol on Biosafety and India’s Third National Report to the Cartagena Protocol on Biosafety were also discussed.
- On 22nd Jan 2016 as part of Peer to Peer exchange programmes Shri.S.P. Rayal, IFS Member Secretary and members from Madhya Pradesh Biodiversity Board visited Kerala. The team visited Manickal Panchayat for sharing of experiences with BMC of Manickal. This was followed by visit to Periyar Tiger Reserve and Munnar.
- On 14th and 15th March as part of Peer to Peer exchange programmes a team led by Senior Programme Co-ordinator G. Sailu and BMC members of Telengana Biodiversity Board visited the KSBB headquarters. The team visited Manickal Panchayat for sharing of experiences with BMC of Manickal.
- On 25th and 26th March as part of Peer to Peer exchange programmes Shri. T. Lotha, IFS Chairman, Nagaland Biodiversity Board visited KSBB.
- KSBB had initiated a project targeted to replenish the population of selected species of native fishes by rearing the fingerlings caught during monsoon fishery and releasing them to their native ecosystem. The programme was implemented in Pathanamthitta, Alappuzha, Kottayam, Ernakulam and Thrissur during March 2016.
- A review meeting of Marine Biodiversity register of Kollam, Trivandrum and Vizhinjam was conducted on 15th February and 3rd June 2016. The meeting was attended by experts in the field of marine bioresources and aimed at identifying marine species and documenting traditional knowledge of fisherfolk.
- The regional meeting of Biodiversity club co-ordinators was inaugurated on 8th January 2016 by Shri. P. J. Joseph, Minister for Water resources. Dr. Oommen V. Oommen Chairman, KSBB chaired the function. The programme was attended by the Biodiversity club coordinators of Idukki and Kottayam. This was followed by regional meeting of club coordinators of Pathanamthitta, Alappuzha, Ernakulam and Thrissur on 19th Feb 2016. On 17th March regional meeting of club coordinators of Kannur, Kasargode and Wayanad was conducted at Kannur. On 18th March regional meeting of club coordinators of Palakkad, Malappuram and Kozhikode was conducted at Malappuram. On 29th March regional meeting of club coordinators of Trivandrum and Kollam was conducted at Trivandrum. The programmes were coordinated by Dr. Suresh Babu, and Dr. Annie Mathai, Senior Programme Coordinators, KSBB.
- For the long term and medium-term storage of seeds a seed bank was established by KSBB in collaboration with Dept. of Botany, Kerala University. The Seed bank will aid in the conservation of local landraces and wild relatives of crops. The Seed bank with a walk in cold room (4^oC) and deep freezer (-4^oC) is expected to serve as a source of genetic resources for research and also serve as a seed repository for *ex-situ* conservation.
- The inspection of the shanthistal established by KSBB at Kannur district was conducted by Dr. Swapna T. S, Principal Scientific Officer and Kannur District Coordinator during May 2016.



**Nature camp for children
at Eravikulam National park**

Dr. B. Meenakumari took charge as NBA Chairperson

Dr. B. Meenakumari took charge as Chairperson, National Biodiversity Authority, Chennai. She is a renowned scientist in the field of fishing technology. Earlier she was working as Deputy Director General (Fisheries) ICAR. She has headed The Expert Committee (EC) constituted to review India's current deep-sea fishing policy and guidelines. She has done extensive research in the areas of development of newer fishing gear for coastal and deep sea fishing and conservation of marine biodiversity.



Jaivavaividhya Radham begins tour

The mobile biodiversity exhibition 'Jaivavaividhya Radham' a joint venture of KSBB and KSRTC began tour. It visits educational institutions in various parts of the State.

The mobile exhibition housed in a remodelled air conditioned Kerala State Transport Corporation bus showcases the rich biodiversity of Kerala through attractive panels providing information on status, trends and threats to biodiversity and various conservation measures. In addition the bus also has miniature models of flora and fauna and models of unique ecosystems of Kerala. The Radham also has in-built television screens on which documentaries and short films relating to biodiversity is being shown. A demonstrator is accompanying the Radham for explaining the exhibits to visitors.



State Biodiversity Awards presented

KSBB gives Biodiversity awards to individuals and organizations for their meticulous work in the field of biodiversity conservation every year. Awards are given in 14 categories, which include conservation of biodiversity, indigenous crops, varieties and breeds, organic farming, biodiversity awareness through print and electronic media etc. Award consists of plaque, certificate and cash award ranging from Rs.50000 to 1 lakh. Awards for the year 2015 were presented by Minister for Environment and Forest, Shri. Thiruvanchoor Radhakrishnan in the function held at Kottayam as part of the Jaivavidhya Mela in February 2016.

The award winners are; Biodiversity Management Committee- Chapparappadavu Grama Panchayath, Kannur, Environmental Conservation- Raphi Ramanath, Alapuzha, Conservation of Indigenous Varieties- K.P. Krishnan Nair, Kannur, Organic farming- A. Mahamood, Kannur, Biodiversity research- Mathews Plamoottil, Baby John Memorial Govt. College, Chavara and Dr. A.V. SudhiKumar, Christ College, Irinjalakuda, Conservation of cattle breeds- Ajayakumar V. R, Pathanamthitta, Conservation of Traditional Knowledge- T.M. Shahul Hameed Vaidyar, Kollam, Biodiversity club- Govt. HSS, Sreekandapuram, School- Siva Vilasom VHSS, Thamarakkudy and Govt. UPS, Karara, Agali, Organization - Society for Educational and Integral Development, Wayanad, Malayalam Print Media- M.Jayathilakan, Mangalam Daily, Visual Media- Biju Pankaj, Mathrubhui News and M.Venukumar, Victers Channel.



Zero tolerance for the illegal trade in wildlife

World Environment Day 2016 was celebrated world-wide on June 5th 2016 focussing on the theme "Zero tolerance for the illegal trade in wildlife". The booming illegal trade in wildlife products is eroding Earth's precious biodiversity, robbing us of our natural heritage and driving whole species to the brink of extinction. The killing and smuggling is also undermining economies and ecosystems, fuelling organized crime, and feeding corruption and insecurity across the globe. Wildlife crime endangers iconic elephants, rhinos, tigers, gorillas and sea turtles. In 2011, a subspecies of Javan rhino went extinct in Vietnam, while the last western black rhinos vanished from Cameroon the same year. Great apes have disappeared from Gambia, Burkina Faso, Benin and Togo, and other countries could quickly follow. Lesser-known victims include helmeted hornbills and pangolins, as well as wild orchids and timbers like Rosewood.

Meeting of BMCs, farmers and traditional healers

Various meets were organized as part of the Jaivavaividhya Mela 2016 held at Kottayam.

BMC members representing various Panchayats, Corporations and Municipalities took part in the Biodiversity Management Committees (BMCs) meet. The BMC-meet served as a platform for sharing of experiences and issues faced in implementation of the Biological Diversity Act and Rules.

Nattarivusangamam, a meeting of the traditional healers and experts from the field of traditional medicine was organized with an objective of providing a venue to share the experiences of traditional healers. Distinguished practitioners of traditional medicine belonging to tribal and non-tribal communities shared their expertise in their respective subjects.

Harithasangamam, the meeting of eco-friendly farmers, state level meeting of Technical Support Group members and the regional meeting of Biodiversity club co-ordinators were also organized.

Children's Biodiversity Congress convened for the 8th year

As part of biodiversity awareness programmes KSBB has been conducting Children's Biodiversity Congress since 2008 to promote the awareness of importance of biodiversity among children and youth. The 8th CBC was organized at Kottayam.



Competitions on specific themes were conducted at district level, and those who secured first place participated in the State level competitions. The competitions conducted during this year included painting, poster, story writing,

versification and project presentations. The various themes under different categories included Forest Biodiversity, Fostering awareness on Biodiversity, Life in Soil, Conserving soil and Soil in my village. The competitions elicited great enthusiasm and response from students. About 200 students, who are the 1st prize winners in district level, participated in the state level competitions held on February 22nd and 23rd at Nehru stadium, Kottayam. The winners of 8th CBC were given prizes during the concluding function.

Digital Photography Contest winners felicitated

Kerala State Biodiversity Board conducted a National digital photography contest "Green Images-2016" as part of International Biodiversity Day Celebration under two categories ; Age group 10 to 18 years and 18 years and above with the theme "The Green Earth" and "Biodiversity and sustainable livelihood" respectively. The event carried cash prizes for 1st, 2nd and 3rd prize winners in addition to consolation prizes and most liked entries in social media. Ashik Paul, Aakash Kishan and G.Suryadatta won the 1st, 2nd and 3rd prize respectively in category I. A.S. Sasi, Sujan Sarkar and Suresh Kumar N won the 1st, 2nd and 3rd prize respectively in category II. The prizes were distributed by Shri. James Varghese IAS, Principal Secretary (Ports) in the public function held in connection with the International Day for Biological Diversity.



'Feathers of Vellayani' released

Former Chief Secretary P. K. Mohanty released a book on birds inhabiting Vellayani fresh water lake. Titled 'Feathers of Vellayani', the book has been brought out by the Kerala State Biodiversity Board. Vellayani lake in the capital, spread over 490 hectares, is a favourite haunt of a variety of local as well as migratory birds. These birds visit the lake and surroundings for food and reproduction. However, extensive farming on land reclaimed from the river, urbanization and pollution has threatened the habitat of the birds. 'Feathers of Vellayani' contains comprehensive details about over 133 varieties of birds. The book is authored by Dr. Oommen V. Oommen, Dr. K.P. Laladhas and Dr. Linda John of Kerala State Biodiversity Board.

Four 'extinct' plant species rediscovered

*Researchers of Government Victoria College, Palakkad, have spotted a new plant species with botanical name *Sonerila nairii*, which comes under the family of Melastomataceae from the Pottumala region of Nelliampathy forests in the Western Ghats. The discovery from biodiversity rich Nelliampathy has been published in the latest issue of *Phytotaxa*, an international journal on taxonomy. Interestingly, the researchers have named the plant as *Sonerila nairii* as a tribute to eminent botanist P.K.K. Nair. The plant with pink coloured flowers is a highly endangered species. The plant was seen growing around 1,200 metres above sea level. Each plant carries just two flowers. The plant grows in soil found in the gaps of rocks. The plant species is enlisted in the critically endangered category of the International Union for Conservation of Nature (IUCN).



Sonerila nairii

*Four species of *Impatiens* (Kasi Thumba) plants believed to have gone extinct were rediscovered from the Western Ghats recently. A team of researchers of the Centre for Medicinal Plants Research, Kottakkal Arya Vaidya Sala, made the rediscovery during explorations at Dhoni Hills of Palakkad and Nelliampathy. The rediscovered plants, *Impatiens concinna*, *Impatiens sasidharanii*, *Impatiens neo-modesta*, and *Impatiens sasidharanii var hirsuta*, were found to have great medicinal values. According to the researchers, these plants, usually found 2,000 ft above sea level, are short-lived and will be seen only one quarter of a year.

*A new species of snake has been identified from the northern Western Ghats by researchers. The snake has been named *Melanophidium khairei* after Neelimkumar Khaire. The new species named *khairei* is different from *Melanophidium punctatum* in terms of the scales on the tail and stomach and they differ even in their distribution. While *M. punctatum* is found in the south of Palghat Gap in Kerala, *M. khairei* is found in the northern Western Ghats in Radhagiri, Amboli and the surrounding areas of Maharashtra and Goa.

India Biodiversity Awards 2016 presented

Launched in 2012, by the Ministry of Environment Forests and Climate Change in partnership with the United Nations Development Programme, the India Biodiversity Awards recognise excellence in biodiversity governance across the country. Shri. Prakash Javadekar, Minister of State, Environment, Forest & Climate Change presented the India Biodiversity Awards 2016 to the winners and the runners-up during national level celebrations of International Biodiversity Day on May 22nd at Mumbai. The award winners for conservation of threatened species, include Purnima Devi and the women's *Hargilla* army for protection of The Greater Adjutant bird and Nature Conservation Foundation and the Ghora-Abhe Society, for the Hornbill Nest Adoption Programme in Pakke Tiger Reserve, Arunachal Pradesh. Dr. Sossama Iype, was the Runner-up for saving the Vechur cattle from the brink of extinction through an *ex-situ* breeding programme and distribution to farmers allowing for its *in-situ* conservation. The award for sustainable use of bioresources was given to Mawkyrnot Self Help Group: for The Living Root Bridges, a marvel of bio-engineering. In the category successful mechanisms of Access and Benefit Sharing award was given to Gram Mooligai Co. Ltd., Madhya Pradesh in developing medicinal plant products and markets, aimed at sustainable use and equity involving local community. The Dudhai Biodiversity Management Committee in Uttarakhand won the Biodiversity Management Committee award for banning illegal sand mining and reviving river ecosystems. The runner up in this category was Niitii Hong for Conserving and reviving the ecosystem of Ziro Valley in Arunachal Pradesh by combating rampant felling of trees, checking over consumption of forest produce by tribes and villagers, reducing soil erosion and water contamination due to dumping of waste by local communities.

World's most resistant plant

Welwitschia mirabilis found in Namibia can truly claim to be one of a kind. The estimated lifespan of this plant is 400 to 1500 years. It can survive up to five years with no rain. *Welwitschia* plant consists of only two leaves and a sturdy stem with roots. Two leaves continue to grow until they attain the shape of curly hair. The stem thickens, rather than gains in height, and can grow to almost 2 meters high and 8 meters wide. The plant is said to be very tasty either raw or baked in hot ashes, and this is how it got its other name, Onyanga, which means onion of the desert.



Medicinal Melon

Despite popular belief that it is made up of only water and sugar, watermelon is actually considered a nutrient dense food.



A study published by the American Journal of Hypertension found that watermelon extract supplementation reduced ankle blood pressure, brachial blood pressure and carotid wave reflection in obese middle-aged adults with prehypertension and that watermelon extract improved arterial function.

Being rich in lycopene, water melon may help protect against heart disease. As an excellent source of the strong antioxidant vitamin C as well as other antioxidants, watermelon can help combat the formation of free radicals known to cause cancer. Lycopene intake has been linked with a decreased risk of prostate cancer prevention in several studies.

Watermelon, because of its water and fibre content, helps to prevent constipation and promote regularity for a healthy digestive tract. Made up of 92% water and full of important electrolytes, watermelon is a great snack to have on hand during the hot summer months to prevent dehydration. Choline is a very important and versatile nutrient in watermelon that aids our body in sleep, muscle movement, learning and memory. Choline also helps to maintain the structure of cellular membranes, aids in the transmission of nerve impulses, assists in the absorption of fat and reduces chronic inflammation.

Watermelon and watermelon juice have been shown to reduce muscle soreness and improve recovery time following exercise in athletes. Researchers believe this is likely due to the amino acid L-citrulline contained in watermelon. Watermelon is also great for your skin because it contains vitamin A, a nutrient required for sebum production that keeps hair moisturized. Vitamin A is also necessary for the growth of all bodily tissues, including skin and hair.

Adequate intake of vitamin C (one cup of watermelon provides 21% of daily needs) is also needed for the building and maintenance of collagen, which provides structure to skin and hair. Watermelon also contributes to overall hydration, which is vital for having healthy looking skin and hair. One cup of diced watermelon (152 grams) contains 43 calories, 0 grams of fat, 2 milligrams of sodium, 11 grams of carbohydrate (including 9 grams of sugar) and 1 gram of fibre. One cup of watermelon will provide 17% of vitamin A, 21% of vitamin C, 2% of iron and 1% of calcium needs for the day.

Watermelon also contains thiamin, riboflavin, niacin, vitamin B-6, folate, pantothenic acid, magnesium, phosphorus, potassium, zinc, copper, manganese, selenium, choline, lycopene and betaine.

The Woodcarver's gift

A Native American tale

In an Island, there was a young chief whose wife fell sick and died shortly after their marriage. The young chief was deeply saddened. No one could console him. Then a skilled wood carver from that village came to the chief and offered to carve an image of the wife who had died. The carver said, "I have seen your wife. I have seen the two of you walking together. If you will allow me, I would like to carve her image." The young chief agreed.

The carver took a piece of red cedar and began working on it. The carver made a likeness of the wife. Then he dressed it in the same fashion as the wife had dressed. When he was finished, he went to the young chief and said, "Now you can come and have a look."

When the chief went inside the carver's hut, he saw his wife sitting there just as she always looked.

He was very happy. "What do I owe you for making this?" he asked the carver. "It is because I felt badly for you that I made it. Do not pay me too much." But the chief paid him well.

The chief took the statue home and dressed it in his wife's clothes. He felt that his wife had come back to him. He talked to the image and treated it just as he had treated his wife. One day as he was sitting very close to the image, he felt it move. He thought it must just be his imagination. But still he was not sure and every day he went back and examined it closely. He thought that at some time it would come to life.

After a while, members of the village came to see the image. Many could not believe it was not the woman herself until they had examined it closely. The image became more and more alive in the imagination of the young chief even though it did not move or speak. Then one day it gave forth a sound from its chest and the chief knew that it must be ill. When he moved it from its place, he could see a small cedar-tree growing from the floor. It was left there to grow.

Every day the image of the young woman appeared to be more like a human being. People from other villages heard the story and came to see the statue and the cedar tree growing near it. They were astonished. In all this time the statue never moved or talked very much but the husband began dreaming about what she wanted to tell him. She became alive in his dreams. In this way the chief was healed and his sadness passed.

That cedar tree beside the statue became a very large tree. When people there look for red cedar trees and find a good one, they say, "This looks like the baby of the chief's wife."

