

NEWSLETTER

SABAH WETLANDS CONSERVATION SOCIETY



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HAPPY WORLD ENVIRONMENT DAY 2019

World Environment Day (WED) is celebrated on the 5th of June every year and is the United Nation's principal vehicle for encouraging awareness and action for the protection of our environment. The theme for this year is "Air Pollution" that will bring together communities, individuals, government agencies, industries to explore various sources of renewable energy and green technologies, which in turn will help in improving air quality in cities and regions across the world.

More details at <https://www.worldenvironmentday.global/>

OBJECTIVES

To promote the conservation of wetlands in Sabah and the variety of plants, birds and other kinds of organisms found in them.

To raise public awareness and appreciation of wetlands and public involvement in protecting wetlands.

To manage Kota Kinabalu Wetlands (KKW) as a model wetlands centre for the purpose of conservation, education, recreation, tourism and research.



A Non-Governmental Organization working on Conservation of Wetlands in Sabah

Established on 22 August 2005

Plant Technology & Innovation



Biodegradable Pots

Credit: <https://www.homestolove.com.au>

The use of technology and innovation highly increase because of demand and expertise in modern technology. In this edition, we will talk about technology based on plant. One of the technology and innovation from the plant is biodegradable pots which are made from coir, wood fibre and biodegradable plastic. This product support environmentally friendly which may not harm the environment.

Biodegradable plastic pots offer the same benefits as regular plastic pots, it is long-lasting, easy to handle and the pots are breakdown naturally over time. To dispose of them, cut up the pot and add the pieces to the compost or place them in the bottom of the planting hole and it will take up to three years for the pieces to break down.

The other type of biodegradable pot is made of wood fibre and the advantages beyond being able to break down fast than biodegradable plastic pots. Another advantage is the plant along with the fibre potable to go straight into the ground. This means no root disturbance, no transplant shock and no downtime while roots will be affected.

The invention of a product by plants such as biodegradable pots will help to reduce the usage of the plastic pot, in order to save the environment.

*Article references: <https://www.homestolove.com.au>
https://wikivisually.com/wiki/Meat_analogue*



Tofu

Credit: <https://www.splendidtable.org>

Tofu, which is food made from soybean is called as “small mutton” it is invented during Han Dynasty and valued as an imitation meat. Food that is valued or called as meat imitation is called as meat analogue, generally, its mean food made from vegetarian ingredients with many analogues are soy-based or gluten-based but now may also be pea protein-based. The market for these meat analogue products are for people seeking to reduce meat consumption, people that following their religious dietary laws and people who choose to need a vegetable product only such as vegetarian and vegan.

With the advancement of technology, meat analogue also received huge improvement where recently scientist had created a burger that is made entirely from plant materials. This meant that the scientists have solved a few distinct challenges such as how the meat created from plant behave like beef during cooking. This new meat contains vegetable fats from coconuts, that is solid in room temperature and melts when heated. This meat also contains a substance called leghemoglobin, this substance is similar to haemoglobin and myoglobin which is the source for meat red colour and iron content. However, the leghemoglobin used to give the plant burger its appearance and iron content are not actually obtained from plants because it is too inefficient, but it came from modified yeast grown in a container of blood-coloured liquid.

The Sumatran rhinoceros is the smallest rhinoceros' species which has two horns like its African counterpart. They are found only in Sumatra in Indonesia, Sabah, Peninsular Malaysia and possibly in southern Thailand. They are two subspecies of the Sumatran rhinoceros which are the *Dicerorhinus sumatrensis* (Peninsular Malaysia subspecies) and *Dicerorhinus sumatrensis harrisoni* (Borneon subspecies). The Sumatran rhinoceros is found in a wide variety of habitats which is from lowland rainforest and swamp to mountain moss forest. The rhinoceros seems to prefer hilly areas near water and the secondary forest where the upper canopy is broken and the smaller shrubs and vines are more plentiful. It can eat up to 50 kg of leaves and twigs of young saplings and small trees. They also feed on fallen fruits like figs and wild mangoes. Sumatran rhinos are solitary animals that only come together to breed. The females reach sexual maturity at 4 years while it takes 7 years for a male.

The Sumatran rhino is critically endangered due to poaching and habitat fragmentation where the population keeps shrinking and numbers have declined to an alarmingly low level. The remaining rhinos are so isolated that they may rarely or never meet to breed. A high proportion of females evidently have reproductive tract problems while many of the remaining rhinos are old and possibly beyond reproductive age. In Borneo, it is estimated that there are less than 20 rhinoceros left. For the record, only three Sumatran Rhinos were left in Sabah which is Iman, Puntong and Tam.

Tam will be immortalised via taxidermy for future generations to appreciate and to perhaps never forget. Tam's death has kick-started another round of efforts with Indonesia's Sumatra, where there are about seven captive rhinos, for a breeding programme if they desired. Curtin University wildlife conservation and zoologist associate professor Bill Bateman said that Malaysia and Indonesia have to work together to help increase the population of Sumatran rhino through Iman, both conservation of suitable habitat and through pursuing technological advances in techniques such as in vitro fertilisation.

Article references:

<https://mobile.abc.net.au/news/2019-05-28/last-malaysian-sumatran-male-rhino-dies/11154776>
http://www.wwf.org.my/about_wwf/what_we_do/species_main/rhino/

Malaysian's Last Sumatran Rhino



Tam Malaysian's last Sumatran Rhino died in May 2019
Credit:www.straitstimes.com



Puntung Died in 2017
Credit:www.borneorhinoalliance.org

With Tam's death, Malaysia is now left with one female Sumatran rhinoceros, Iman.

In 2017, Puntung which is one of the only three Sumatran rhinos (*Dicerorhinus sumatrensis*) known to survive in Malaysia was diagnosed with terminal squamous cell cancer. She was euthanized because she was suffering from a painful and incurable cancer. After Puntung died, Iman and Tam were the only Sumatran rhino left in Malaysia. However, in May 2019, Malaysia's last surviving male Sumatran rhino, Tam died due to multiple organ failure. It is reported that Tam's appetite and alertness had declined significantly at the end of April 2019. Urine analysis tests indicated that Tam was suffering from organ damage and poor kidney function. The death of Tam made global headlines with the sobering realisation that the species is one step closer to extinction, with just 50 to 80 animals left worldwide.



1st May 2019. Environmental Education Programme with BBCM Mengatal.



8th May 2019. Environmental Education Programme with Jesselton International School.



18th May 2019. Environmental Voluntary Work with TIM Belia St. Thomas Kepayan.



26th May 2019. Environmental Voluntary Work with SM Tshung Shin Kota Kinabalu.

Guests' comments



Very fun and beautiful.
- Jonathan Kwok from Canada



Thank you for the good experience.
- Mr. Norihiro and wife from Japan



Amazing and uplifting experience. The staff is so caring and willing to explain and answer questions. I look forward to our return and wish this center the best of luck in the upcoming challenges.
- Chamberland Clemence from Belgium

Upcoming Events

Environmental Education Programme

- Jesselton International School, Kota Kinabalu.

Environmental Voluntary Work

- EXO Travel
- AIESEC Volunteers

Mangrove Tree Planting

- CIMB Bank
- SM Tshung Shin Kota Kinabalu

**Open for Registration,
Sign Up Now!**

Junior Wetland Discovery

Topic:
Botany for Kids

Date : 22nd June 2019
Venue : Kota Kinabalu Wetland Ramsar Site
Time : 9:00 am - 1:30 pm
Age : 7 - 12 years old



Contact us for more details
+6088-246955
swcs@sabahwetlands.org

Register Now!



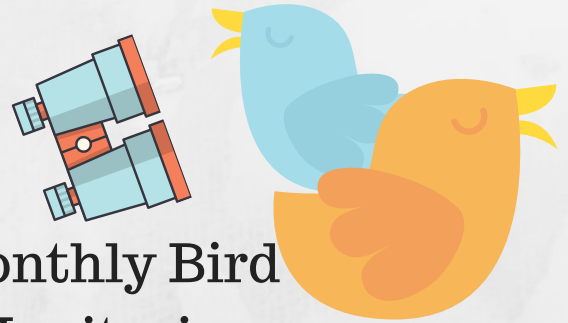
**VOLUNTEER
NEEDED!**

01

Volunteering is good for your heart

Volunteering for KK Wetlands Ramsar Site can be a great fun! If you have passion for the environment or just want to gain more outdoor experiences, this is the appropriate channel. Do not miss the chance! Sign up to be a volunteer now or contact us for more information.

02



Monthly Bird Monitoring



Join our monthly birding activity on every 15th-17th day of the month

membership

Benefits of being our member

03

- As a member, you will be able to participate in members' events and enjoy free entry to Kota Kinabalu Wetlands Ramsar Site
- Eligible for 50% discount for binoculars rental*.
- Most importantly, you know you are helping this ecosystem to survive and provide essential services to it.

FOR MORE INFO

How to REGISTER

Call us at 088-246955 or drop us an email at swcs@sabahwetlands.org

support us by joining our programmes

1. Environmental Education Programme

- i. KK Wetlands Mangrove Experience Programme
- ii. Mangrove Conservation Experience Programme
- iii. Handcrafting from Mangrove

2. Environmental Voluntary Work

- i. Nursery Work
- ii. Mangrove Clean-Up

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