

# NEWSLETTER

Issue No 07: July 2023













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## **Cover Story**

## World Environment Day June 05

World Environment Day, held annually on June 5, brings together millions of people from across the globe, engaging them in the effort to protect and restore the Earth. This year marks the event's 50th anniversary.

The theme for World Environment Day this year focused on solutions to plastic pollution under the campaign #BeatPlasticPollution.

Each year, tons of plastic waste ends up in and around urban canals and wetlands in Colombo and SLLDC together with other government entities spends millions of public money to collect this waste.

## Episode 07:Diyasaru History

Diyasaru Park was gradually developed from an abandoned marsh to an urban wetland park. The park was named Biodiversity Study Park, Thalawathugoda at the beginning in 2014, due to availability of spacious lands in disturbed areas and the richness of biodiversity in undisturbed areas. The park conducted numerous awareness programs from the beginning to educate and aware the students of all the ages from preschool to the postgraduates.





The entire park was divided into ten islands using a peripheral canal network to prevent the encroachment of the wetland while providing effective rainwater storage during the flash floods. Several major landscape changes were introduced such as digging shallow ponds for water birds, construction of structures such as study center, resting hut, walk ways, bridges etc. to provide infrastructure to visitors, planting native wetland plants to restore the vegetation during the initial stages. Certain other features were added progressively parallel to the vegetation improvement to convert this wetland to a park which facilitates the coexistence of wildlife and human.

## **>>>>**

Stay tuned for next episodes for other interesting stories about Diyasaru Park wetland.

# Biodiversity corner

## පිළිලරිසියා Delias eucharis Common Jezebel

පිළිල රිසියා හෙවත් Common Jezebel යනු පෙරිඩේ කුලයට අයත් සෙන්ටිමීටර තුනක පමණ පළලක් සහිත වර්ණවත් සමනලයෙකි. කහ, තැඹිලි ,සුදු සහ කළු වර්ණවල සම්මිශුණයක් සහිත පියාපත් වේගයෙන් සලමින් ඉතා කඩිසරව මලින් මලට පියඹා යන පිළිල රිසියන්ගේ ගැහැණු සතුන් හා පිරිමි සතුන් පැහැදිලිව වෙන්කර ගත හැක. පියාපත් විහිද සිටින අවස්ථාවේදී පිරිමි සමනලයාගේ පියාපත් වල උදරීය පෙදෙස මත තීවු සුදු පැහැය ද ,ගැහැණු සමනලයාගේ පියාපත් මත තීවු කළු පැහැය ද දක්නට ලැබේ.



Common Jezebel



සුහුඹුල් සමනලුන් පිළිල ශාක පත් මත බිත්තර දමන අතර විවිධ මල්වලින් පැණි උරා බොයි. විෂ සහිත සමනල් විශේෂයක් වන Painted sawtooth නැමැති සමනලයා සහ පිළිල රිසියාගේ දේහ වර්ණ හා හැඩතල බොහෝ දුරට සමාන වන්නේ, විෂ රහිත විශේෂයක් විෂ සහිත විශේෂයක් අනුකරණය කිරීම (Bastesian mimicry) මඟින් එය විලෝපිකයන්ගෙන් ආරක්ෂා වීම සඳහා දරණ අනුවර්තනයක් ලෙසිනි. වසර පුරාම ඔබ මොබ සැරිසරන පිළිල රිසියන් දියසරු සමනල උද<sub>ශ</sub>නයේදී ඔබට පහසුවෙන් දැක බලා ගත හැකිය.

**Painted Sawtooth** 

Issue No 07 July 2023

# CEPA Activity Highlights at *Diyasaru* Park

## 05 June Plastic Waste Fair

The theme for World Environment Day on June 5, 2023 focused on solutions to plastic pollution under the campaign #BeatPlasticPollution.

The world is being inundated by plastic. More than 400 million tonnes of plastic is produced every year, half of which is designed to be used only once. Of that, less than 10 per cent is recycled. An estimated 19-23 million tonnes end up in lakes, rivers and seas. Today, plastic clogs our landfills, leaches into the ocean and is combusted into toxic smoke, making it one of the gravest threats to the planet.

Not only that, what is less known is that microplastics find their way into the food we eat, the water we drink and even the air we breathe. Many plastic products contain hazardous additives, which may pose a threat to our health.

Wetlands in Colombo wetland complex are critically affected by plastic pollution. Fauna affected by this pollution through ingestion, entanglement and other dangers. Canals and other wetlands are not only places which plastic waste flows through; they are also places where long-term deposits settle causing many negative impacts on the wetland ecosystem. Many migratory species are threatened by habitat degradation and loss, with some particularly vulnerable to plastic pollution in wetlands because of their ecology and behavioral traits.

Considering significant impacts on biodiversity and human health, addressing plastic pollution is critically important to maintain the ecological balance.







Therefore, on this important day *Diyasaru* park together with Kerawalapitiya waste park of Sri Lanka Land Development Corporation initiated a program to collect waste plastic. SLLDC staff and surrounding community joined with the event to handover the plastic waste to the collection point within SLLDC. Monetary incentives were provided based on the weight of the plastic, encouraging responsible actions.

Collected plastic waste will be used in preparing innovative textiles and synthetic Monofilaments for cleaning tools/brushes by a leading recycler Eco Spindles Pvt Ltd.

This "Plastic Waste Fair" is not a one-time event but rather the beginning of an on-going journey towards sustainability.



# CEPA Activity Highlights at *Divasaru* Park

## **21** July

# World Wildlife Fund Young Professionals' Visit to *Diyasaru* Park

The participants of the World Wildlife Fund Young Professionals' Workshop visited *Diyasaru* Park on June 21, 2023. The main objective of this visit is to study *Diyasaru* Park as a case study in urban nature-based methods for Disaster Risk Reduction (DRR). The participants came from a wide range of regions including, Asia, South America, and Africa. The park conducted lectures to the team on Colombo wetland management and the story of *Diyasaru* Park followed by a discussion and a walk around the park.

This event gave us a great opportunity to share our experiences of Colombo as well as exchange knowledge on how urban wetlands can contribute as a nature-based solution for DRR. Youth Professionals' Workshop on Nature-based Methods for DRR was organized by the World Wildlife Fund's Environment and Disaster Management (EDM) Program from Colombo, 19-23 June 2023.





# **22** July One Day Field Program on

**Techniques in Ecology** 

Institute of Environmental Professionals Sri Lanka (IEPSL) conducted a one day field program on Techniques in Ecology on July 22, 2023 at *Diyasaru* Park with the participation of about 25 persons. The participants were educated on wetland habitat exploration, wetland birds and butterfly identification, biodiversity assessment and data collection, data analysis and interpretation by Dr Ajith Gunawardena, Deputy Director, Central Environmental Authority.









Make your
visit
Memorable
with
Diyasaru
Souvenirs!





# Project Updates

# Nature based Solution for restoration of canal banks in Colombo Wetland Complex (CWC)

The Colombo Wetland Complex is dominated by freshwater bodies and marshes, paddy fields, and is connected by a 47 km-long extensive canal network. Some of these canals are being used for water-based transportation and recreation.

Canal bank erosion is a natural process. However, currently, it has been accelerated due to boat-induced wave load and some poor soil characteristics of the Colombo canal network. Some stretches of the canal banks had been protected earlier either by hard structural measures such as gabion walls and sheet piles. However, these methods are costly and cause negative impacts to the wetland eco system.

Therefore, a nature based solution was proposed to restore these eroded canal banks to stabilize canal banks with an ecologically safe, cost-effective, sustainable alternative that enhances aesthetics and ecosystem services provided by the canal system. This system will restore the natural vegetation of canal banks, thereby creating a favorable habitat for fauna, and allowing reptiles, amphibians, and birds in marshy areas to enter the waterways easily. It will improve water quality by trapping solid particles and absorbing heavy metals in urban runoff before entering the waterways. It will result in increased property values, increased eco-tourism opportunities, pleasing canal banks, improved healthy life. The benefits would be to local and ultimately to all citizens in the country.



#### **Nature-Based Solutions (NBS)**

Nature-Based Solutions are actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

(https://www.iucn.org/our-work/nature-based-solutions)

#### Vetiver Grass (Vetiveria zizanoids) as the cover crop



Vetiver grass has massive finely structured root system.

This deep root system makes Vetiver grass extremely drought tolerant and difficult to dislodge by a strong current.

The cluster roots do not grow wide, but they are 3-4m deep and 2.5m wide after two years of planting.

A good Vetiver hedge will reduce rainfall run-off by as much as 70% and sediment by as much as 90%, does water purification, heavy metal absorption, and soil stabilization. (Source: Mickovski, et.al (2005))

### Coir Logs and Coir Geotextile (Coir Mats)







Coir fibre contains amazing natural characteristics.

- High water absorption and retention
- Great tearing strength
- Biodegradability

Coir fibre is an excellent raw material for soil erosion control, filtration, slope stabilization, sediment control and other horticultural applications.

### Diyasaru Park is there for you,

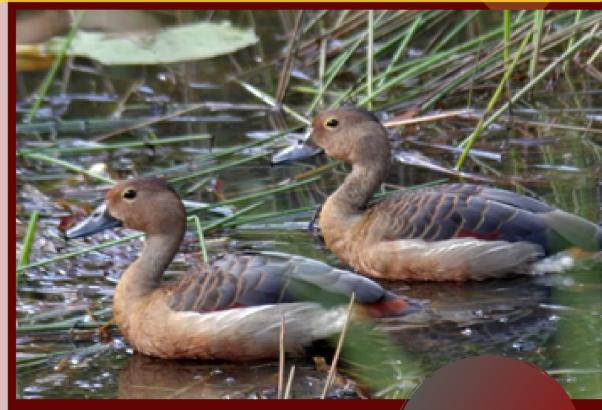
To educate you while you relax in the nature associating various natural, semi-natural and man-made urban wetland landscapes to provide an unforgettable wetland experience.

**Tag** Diyasaru **Park Facebook page** in your next photograph taken at *Diyasaru* Park & win a chance to feature your photograph in our next Newsletter.

## Lesser Whistling <mark>Du</mark>ck (Dendrocygna javanica) හීන් තඹ සේරුවා

Lesser Whistling Duck is a common breeding resident in low country of Sri Lanka frequently seen in flocks on variety of wetland habitats. About 43cm long and brown in color. Females are smaller and slightly paler. Active at dawn and dusk. Prefers to roost and perch on trees near the water. The call is a shrill, whistling "twee twee" that is uttered frequently in flight. Feed in shoots, grains, smallfish, snails etc.

සෙන්ටිමීටර 43 ක් පමණ දිගු පැහැති ශරීරයක් දුඹුරු මොවුන්ට හිමි වේ.පියාසර පිහාටු කළු පැහැතිය. මොවුන්ට සිහින් හඬක් ඇත. හඳුනා ගැනීමට හොඳම ලක්ෂණයක් වන්නේ පියාසර කරන විට සිහින් හඬක් නැඟීමයි. වඟුරු ,වැව්, කළපු, කුඹුරුවල මොවුන් ගැවසෙති. දිවා කාලයේ කඩිසර නොවේ. සවස් කාලයේ ආහාර සොයා පියාසර කරයි.ආහාරය වශයෙන් ධානෳ, මත්සඃයින් සහ ගොළුබෙල්ලන් ආහාරයට ගනී.



by nature photographer Sri.

Captured on July 14, 2023, at *Diyasaru* Park

From Visitor's Eye

Visit *Diyasaru* Park to live-spot this bird. Further, browse the **"Citizen Science Corner"** at the study centre of *Diyasaru* Park to know more information on **Lesser Whistling Duck** & other birds.

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