



*Tshwane kids get up close and personal with unique urban wetland*



Learners conducting miniSASS – identifying aquatic invertebrates that can indicate river health.

*Located just 5 km from the Union Buildings, and flanked by the N4 and N1 highways, the Colbyn Valley wetland, in Pretoria, is a unique asset. On 10 February, children from all over the city got the chance to experience this special urban wetland for themselves.*

The wetland, which covers an area of about 15 ha, is formed by backflooding of the Hartbeesspruit as it flows through a poort between two quartzitic ridges, along with the contribution of groundwater and subsurface drainage from seeps upstream. This has also created favourable conditions for the accumulation of peat, a rare occurrence in South Africa. Peat forms when low-energy flows and permanent waterlogging enable partially-decomposed plant material to accumulate.

In a special event in celebration of World Wetlands Day, more than 170 children visited the Colbyn Wetland Nature Reserve

in Pretoria to learn about wetlands and their role in sustaining our lives and livelihoods. This is an annual event hosted by the WESSA-affiliated Friends of Colbyn Valley and the Agricultural Research Council's Institute for Soil, Climate and Water. This year the organisers were assisted by BirdLife Northern Gauteng, Cripsis Environment, and WetResT Centre for Wetland Research and Training, and sponsored by Ocean Breeze Food Merchants.

A number of environmental professionals and students also volunteered as leaders and facilitators at the event, including, among others, the Tshwane University of Technology Green Arcadia students, BSc Soil Science students from the University of Venda, and specialists from the national departments of Environmental Affairs and Water and Sanitation.

The event was aimed at children aged 7 to 13 years old, drawn from various school and youth groups across the city. In addition,

the non-governmental organisation SOAPKidz facilitated the attendance of vulnerable children from two of the city's community development centres.

The day's activities were designed to create awareness about the value of wetlands, how they are formed, how they function, and how to protect them. Participants were taken on a wetland discovery walk; built a simple model to show how wetlands work; walked the 'catena' (a sequence of changing soil conditions down a slope) to look at the soils and plants that indicate the presence of wetlands; and became 'citizen scientists' by performing miniSASS to classify the water quality of the Hartbeesspruit. MiniSASS or 'mini stream assessment scoring system' is a simple tool which can be used by anyone to monitor the health of a river. You collect a sample of macroinvertebrates (small animals) from the water, and depending on which groups are found, you have a measure of the general river health and water quality in that river.

Wetlands are important areas for supporting bird diversity, and the day kicked off with some extreme close-up bird watching – bird ringers from BirdLife Northern Gauteng set their mist nets in the reserve before dawn, allowing visitors to see how the birds were caught, measured, ringed and released, and explaining how the practice of bird ringing contributes to avian science and conservation. Colbyn Valley has been described as the 'best birdwatching spot in Pretoria' and around 150 bird species can be found here.

In addition, several animal species depend for at least part of their lifecycle on the wetland or surrounds – notable sightings over the years have included genets, duikers, hedgehogs, elephant shrews, water mongooses, and even the threatened red rock rabbit.

Though it is vulnerable to a number of impacts due to its urban location, the Colbyn Valley Wetland remains a valuable biodiversity and water resource, as well as offering residents a unique educational and recreational site. The wetland is conserved within the Colbyn Wetland Nature Reserve, proclaimed in June 2014 by the City of Tshwane.



Children arrived at 6 am to see what had been caught in the BirdLife Northern Gauteng ringers' nets.



Crossing the Hartbeesspruit on the wetland discovery walk.



Suretha Botha explaining that different plant species are found in seasonal vs permanently wet conditions.



Sandiso Dlamini from TUT Green Arcadia guiding his group in building a simple wetland model.