

# MORELETA KLOOF PEATLAND FOUND!

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A peatland was recently discovered in the Moreleta Kloof Nature Reserve! This discovery was made on 10 March 2018 during a “Walk and Talk on Wetlands” activity that was arranged by Ms. Jeannie du Plessis.

The “Walk and Talk on Wetlands” was led by Dr Piet-Louis Grundling (Department of Environmental Affairs (DEA), National Resource Management (NRM): Wetland Programmes) and accompanied by Dr Althea Grundling (Agricultural Research Council). The opportunity was used to communicate the importance of wetlands and peatlands to the Moreleta Kloof Nature Reserve community as well as sharing some basic peatland assessment skills (Figure 1).

In international literature most people cite Joosten & Clarke (2002), who define **Peat** as "sedimentarily accumulated material consisting of at least 30% (dry mass) of dead organic material", **Peatland** as “an area with or without vegetation with a naturally accumulated peat layer at the surface” and **Mire** as “a peatland where peat is currently being formed.”

The Moreleta Kloof peatland site (25°48'44.54"S; 28°17'29.58"E") occurs in the Moreleta Kloof Nature Reserve (<https://moreletakloof.co.za/>) situated in the east of Pretoria in a tree-filled suburb called Moreletapark (Figure 2). The Rademeyer Spruit flows through the reserve and is a tributary of the Moreleta Spruit that runs through the eastern suburbs of Pretoria. The geology consists of shale and quartzites of the Magaliesberg formations from the Pretoria Group (Grobler, 2000; Walmsley, 1978). Grobler (2000) described the vegetation type as a possible transition between the grassland and savanna biomes. The grassland is found on exposed, cooler, upper slopes, while the woodland/savanna communities are found on the sheltered, warmer valley slopes.

The reserve includes rocky quartzite ridges, a channeled valley bottom and seepage wetlands. The larger channeled valley bottom receives groundwater input from adjacent seep zones. Dark red coloured water formed by the oxidation of ferrous iron-rich groundwater, seeps into the mire (Figure 3). The Moreleta Kloof peatland contains about 300 mm of fibrous peat (Figure 4). The depth (300 mm) is an important criterion that classifies an area as a peatland.

Ms. Jeannie du Plessis and Mr. Mike Robinson expressed their appreciation and excitement at this special discovery! The site will be recorded in the National Peatland Database, housed at the Agricultural Research Council and flagged for a future peatland survey. The Working for Wetlands Programme will, in co-operation with City of Tshwane Metropolitan Municipality, look at the possibility to do some wetland restoration work in the reserve.

For more information: send a message or contact us on [info@moreletakloof.co.za](mailto:info@moreletakloof.co.za)

## References:

Grobler, C.H. (2000). The vegetation ecology of urban open spaces in Gauteng. MSc thesis, Faculty of Biological and Agricultural Sciences, Department of Botany, University of Pretoria.

Joosten H and Clarke D. (2002). Wise use of mires and peatlands. International Mire Conservation Group and International Peat Society, Jyväskylä, Finland.

Walmsley, R.D., Toerien, D.F. and Steyn, D.J. (1978). Eutrophication of Four Transvaal Dams. *Water SA* Vol. 4. No.2.



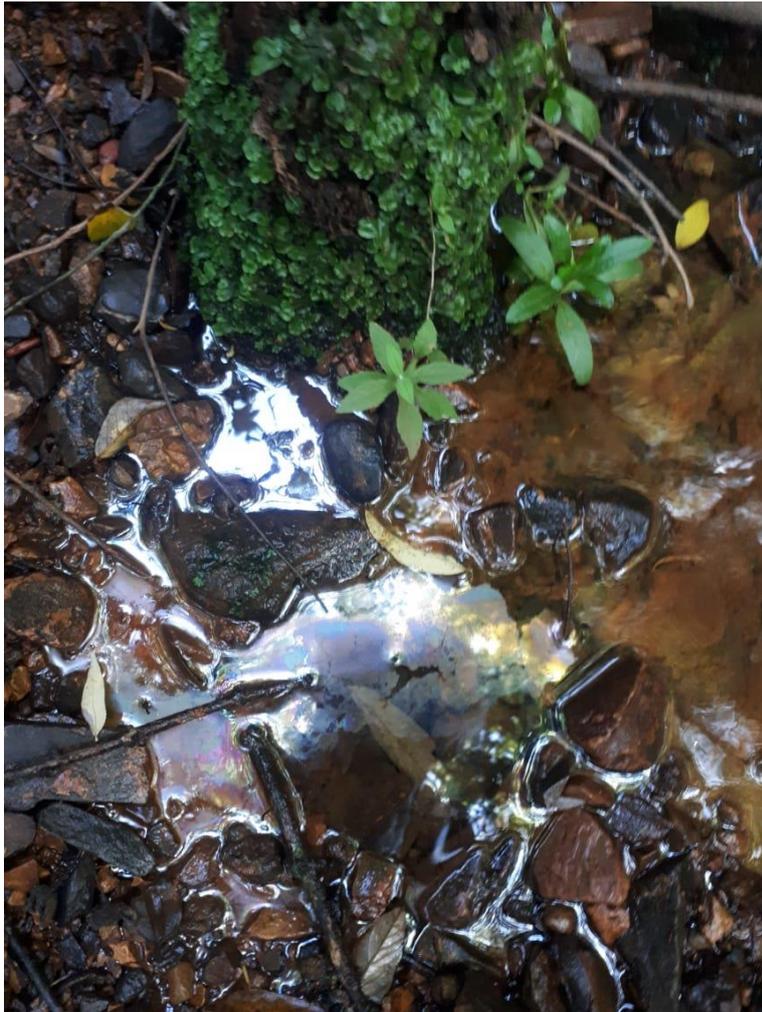
Photo: AT Grundling

**Figure 1:** The “Walk and Talk on Wetlands” was led by Dr Piet-Louis Grundling (DEA, NRM: Wetland Programmes) on 10 March 2018.



Google Earth Pro

**Figure 2:** The peatland site (yellow place mark) is situated in the Moreleta Kloof Nature Reserve, in the east of Pretoria.



Photos: J du Plessis

**Figure 3:** Various seeps are evident alongside the channelled valley bottom. Dark red coloured water was observed.



Photo: AT Grundling

**Figure 4:** The peat became deeper towards the centre of the wetland where it was still inundated and covered with the reed, *Phragmites australis*.