

# April 2018: Mountain water finally arrives at a unique floodplain - the Nylsvley Ramsar Site, South Africa. *Dr Sue Taylor AfroMont*

## [Water finally arrives in the Nylsvley Ramsar flood plain](#)

Around the middle of April this year, Natasha Möller, the Officer in Charge of the tiny Nylsvley Nature Reserve and Ramsar Site, sent out photos to show the Friends of Nylsvley that water had finally arrived in the wetland, even if very late in the season. From rainfall in the Waterberg massif about 30 km away, it takes about 10 days to begin filling up the Nylsvley floodplain.



*The very flat Nylsvley floodplain with the Waterberg Mountains in the distance, May 2018 (Photo SJ Taylor)*

This year, perhaps because of the four-year El Nino drought that ended during 2017, the summer rainfall in the Waterberg Mountain catchment was late, and this meant that the wetland was dry throughout the 2017-2018 summer. Most of the birds had already given up on their chance of breeding and had moved away. Others (we saw a red-billed teal hen with chicks and a little grebe with her chicks) are still making a brave effort, racing against time. As winter settles in during May to October, the waters will drain away and the wetland enters a period of extreme winter stress. The struggle will be for the resident birds to just survive, and there is hardly enough food for even that.

## [Summer inundation brings fish and frogs](#)

With the annual summer inundation of the Nylsvley Ramsar Site, it is not just water that arrives, but fish. As the wetland fills up with water, toads and frogs also begin to breed, and this abundance becomes food for herons, egrets, geese, snipe and many other water birds. The great catfish who have waited all year are also eager for the new supply of smaller fish and frogs, and are experienced enough to know in which deeper pools to wait. Experts have also seen very large pythons who also lurk in shady pools, and they feed on the fattened catfish. Summer is a very busy (and ruthless) time for all species living in the wetland. Winter, by contrast, is a period of waiting and enduring – that is for those birds and other animals that remain. Others like the swallows, swifts and martins,

African hoopoes and birds of prey like the tiny Amur falcon, it is a time to fly long distance to somewhere less hostile.



*Wader footprints in mud, Nylsvley Nature Reserve, May 2018 (photo SJ Taylor).*



*In this area, the floodwaters have already soaked away, leaving green grass and lots of mud. This area will soon turn brown and be prone to winter fires. May 2018 (photo SJ Taylor).*

The Nylsvley wetland, fed by the Nyl River, is located on the Springbok Flats in South Africa. The Springbok Flats is an extensive area with very few natural drainage lines and water coming into floodplain region tends to spread out and not drain away easily. The Nylsvley Nature Reserve encompasses the entire Ramsar site, and is 3 970 ha in size with coordinates 24°39'S 028°42'E. The dominant wetland type is the grassland floodplain, surrounded by savannah and woodlands. The Nylsvley Nature Reserve has a small herd of endangered roan antelope *Hippotragus equis*, and other game animals (giraffe, brindled wildebeest, waterbuck and smaller ungulates). In the evenings, the eerie cry of jackals can be heard, and some say there still leopards in the area.

#### Waterberg Mountains the origin of the wetland water flow

The water that flows along the Nyl River into the Nylsvley Ramsar site begins as rainfall on the Waterberg Mountains, about 30 km away from the floodplain. The area for the Waterberg plateau is about 14000 square kilometres in extent and it reaches 1860 m asl in only a few places; overall it is about 1400-1500 m asl; its highest point at Marakele is 2088 m asl. The catchment for the Nyl is about 500 square kilometres in extent, so it comprises only a very small part of the Waterberg (<4%) (Tarboton, pers. comm., 2018). This year's floodwater came in from just a couple of minor tributaries (Middelfonteinspruit, Dewetsloop, Hartebeeslaagtespruit) and the usual main sources of floodwater (Groot- and Klein-Nyl and Olifantsspruit) did not deliver any water to the floodplain this year - it is these rivers that are being increasingly compromised by abstraction (see [www.waterberg-bioquest.co.z](http://www.waterberg-bioquest.co.z)). The actual catchment for the floodplain receives about 600 mm precipitation per year. The rainfall in the Waterberg takes about two weeks to arrive at the Nyl floodplain. The water flow normally can arrive at any time between October to May, but is highly variable. There are concerns that with increased farming and urbanisation around the floodplain, the water might just not arrive at all. One of the key threats to the Ramsar wetland is the over-abstraction of water upstream of the wetland, and by local municipalities. What is a concern is that a large part of the entire wetland above and below the Ramsar Site is unprotected, and is used for cattle grazing, game farms or is ploughed for crops. Farmers have also suffered during the four-year drought (2014 – 2017), and have put up many small dams, which are illegal. Other threats include coal prospecting (which could lead to actual coal mining and the problem of acid mine water) and proposed platinum mining on the floodplain itself and the upstream catchment, as well as nutrient pollution from unregulated urban sewage and industrial effluents running into the Nyl River from the small towns of Modimolle and Mookgophong.

#### Monitoring of wetland health

The *Important Bird and Biodiversity programme* of Birdlife South Africa ensures that bird counts are conducted regularly at Nylsvley, and an annual *Woodland Bird Census* is run by the Friends of Nylsvley (FoN), sponsored by Witwatersrand Bird Club. Long term monitoring is often a problem with the management of formal designations like Ramsar. Once established, the monitoring and management of a Ramsar site can be neglected or even forgotten, and being declared a Ramsar site title does not protect the site by itself. Friends of Nylsvley (FoN)

The Friends of Nylsvley (FoN), started in 1991, is a voluntary organisation set up to help provincial government with the management of the site. FoN is affiliated to the Wildlife and Environment Society of South Africa (WESSA) and BirdLife South Africa. Under the supervision of the reserve management, the FoN run work parties and nature-based courses at Nylsvley. Over the years, FON has also financed and helped install bird hides and walkways in the wetland. There are often budget short falls for small items in the nature reserve, and so FoN has been able to fund raise and finance smaller items like repairs to tractors, provide diesel for vehicles, and buy tools, uniforms and boots for the staff. The Friends of Nylsvley also monitor new developments in the wider flood plain area, and comments on any Environmental Impact Assessments (EIAs) for new development in and around the Ramsar site. By doing this, they make sure that issues threatening the wetland are made more public, thus enabling local residents, farmers and birders greater transparency and agency in contesting unwise land uses in the catchment as a whole.



*Group camp facilities within the Nylsvley Nature Reserve, used by Friends of Nylsvley and many other groups for environmental courses. May 2018. Note well-camouflaged Agama atra in the tree (40 cm long). This is the southern rock agama (Agamidae family) (Photo SJ Taylor).*

<https://nylsvley.co.za>

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