

SCHOOL WORKSHOPS REPORT Summer 2023

On Wednesday 19th April 2023 Freshwater Habitats Trust ran an in-person 'Train the Teacher' session for school teachers in The Brecks area to train them to use quick and easy nutrient testing kits as a class activity (Fig 1). The training enabled them to run their own 'Testing the Water' survey and lesson to teach their students more about their local freshwater habitats while at the same time adding to the extensive data collected by BFER LPS volunteers across the Brecks area.



Fig 1: The training session

The session's aims and objectives, included explaining the importance of clean water to wildlife and people, demonstrating the latest cutting edge monitoring technology to test water for pollution (nitrate and phosphate), and explaining the relevance of data collection and subsequent contribution to a "bigger picture"

Five schools took part in the training with 10 teachers further engaging with 172 students. The school which recorded the most clean water was The Damara school at 60% (Fig 2).

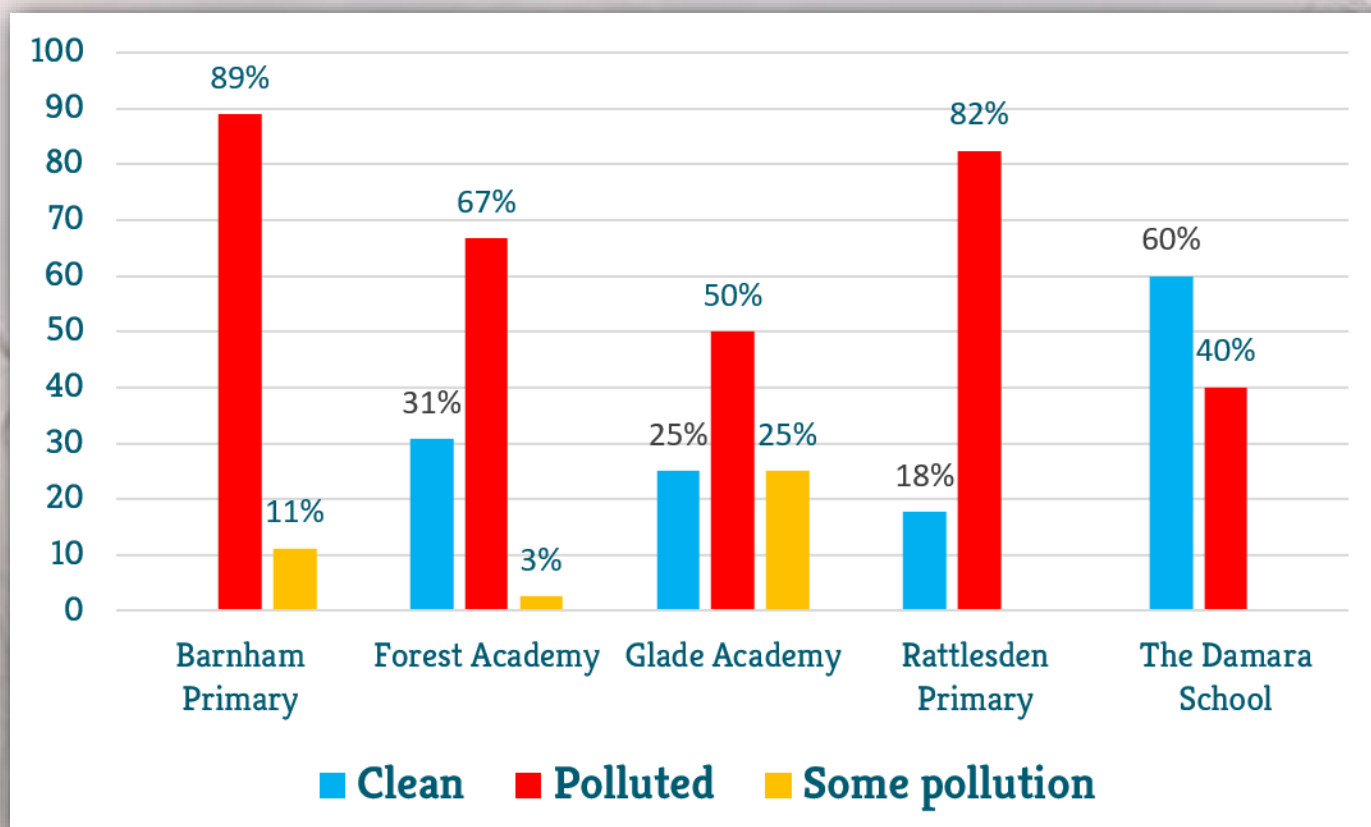


Fig 2: Percentage of clean/polluted water across the school samples

Understanding the Results

In total 79 water samples were collected by students in the Brecks area. The sampling took place in May and June 2023. Across all the samples 68% were polluted with 28% clean and 4% some pollution (Fig 3).

78% of the rivers tested were found to be polluted by nutrients (Fig 4). Rivers and streams drain large areas of land and are exposed to multiple sources of pollution from urban and agricultural areas. Ponds and lakes are also affected by the surrounding land use, but they naturally drain smaller areas of land. If the surrounding habitat is free from nutrient pollution, the ponds and lakes are likely to have clean water. In this case only one lake was sampled (Lynford Water) which tested clean.

70% of the ponds tested were garden/school/fish ponds. As 71% of these ponds were polluted it is highly likely that pollution is caused by fish, the presence of which (in small ponds) can raise nutrient levels, via faeces or fish food. Tap water tested in the area also had high nutrient levels so the high nutrient levels could also be attributed to filling/topping up small domestic ponds with nutrient rich tap water. On the other

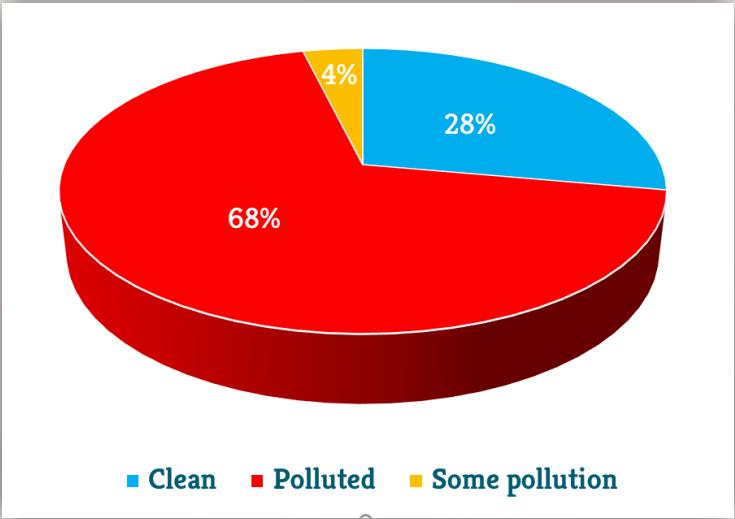


Fig 3: Percentage of clean/polluted water tested

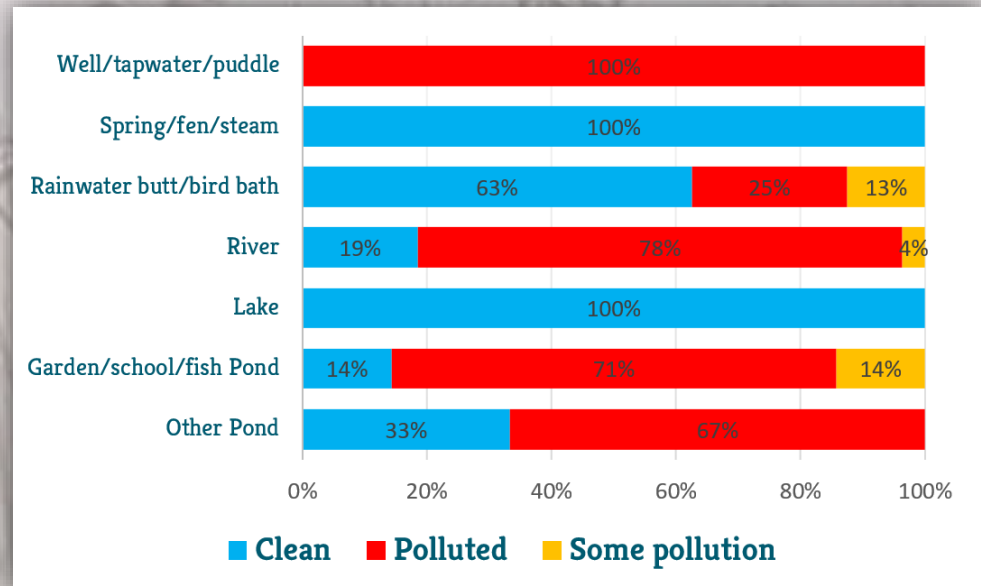


Fig 4: Percentage of nutrient pollution across different waterbodies sampled

hand, rainwater generally has lower levels of nutrients and in this case 63% of rainwater (from butts and one bird bath) tested clean. Fens (2 no.), a spring (1 no.) and a steam (1 no.) were the cleanest waterbodies tested indicating that these sample were possibly taken in areas of semi-natural habitats with low agricultural or urban nutrient inputs.