

# MARLIN SUB-AQUA CLUB MIDLAND POOLS PROJECT REPORT FORM



## 1 SITE

Site name	Newbold Quarry Park
Location	Newbold Road, Newbold on Avon, Warwickshire
Grid reference	SP 494 769
Owned by	Rugby Borough Council
Managed by	Warwickshire Wildlife Trust

The site is a former limestone quarry. Lime was made at the site from 1850, but flooding stopped operations in 1923 and it closed in 1927. The quarry was used as a canal reservoir until the 1980s, and was taken over by Rugby Borough Council in 1991.

The site is a Local Nature Reserve (LNR), and contains an isolated (ark) population of the native white-clawed crayfish (*Austropotamobius pallipes*). It is also a Local Geological Site (LoGS); two areas are identified: an inaccessible 4 m vertical section in the alternating mudstones and fine-grained limestones of the Rugby Limestone Member of the Blue Lias Formation, and an accessible area of spoil with frequent *Gryphaea sp* (oysters) and crinoid ossicles (types of echinoderms).

## 2 INITIAL SURVEY

Project Divers	Martin Maple (Dive Manager), Rob Corby, Mike Waddington, Steve Riley, Jamie Vaughan, Hugh South, Mike Cross
Surface support	Ellie Corby (Assistant Dive Manager), Richard Baxter (videography and drone), Nathan Pearce (drone)

Five dives were undertaken on Saturday 26<sup>th</sup> May 2018 between 08:37 and 14:43, by three teams of divers. The weather was cool with mist over the water, then showery but sunny by the conclusion of the day (Figure 1).

The water depth was ~1 m to ~15.5 m (Figure 2). Water temperature varied from 15.5 °C (shallows) to 6.5 °C (at depth) measured with an OSTC2 dive computer. Horizontal visibility was estimated to be 2–3 m (shallows) and 0.5 m (at depth).

The quarry bed was hard stone in areas, but mostly covered by fine silt. In the shallow parts there were abundant plant life (Figure 3). The banks to the south side sloped gently. At the deepest parts the quarry bed was thick black-coloured mud. To the northeast/east side of the quarry is a vertical section of cliff. The underwater geology in this area was found to continue below the water, and the eroded spaces between the strata are now being used by juvenile perch (and no doubt other fish) as refuges.

Two cars were identified in the quarry (perhaps from the 1970s or 1980s), one at ~7 m in the northeast corner, and the other at ~10 m in the southeast. Rubbish, including a pram (Figure 4, left), motorcycle (Figure 4, right), bicycle, tyre, concrete fence post, drinks cans and plastic bags, rope and fishing line were found. Some floating rubbish was present including plastic drinks bottles, and the remains of a small inflatable boat. Submerged metallic objects had been colonised by wildlife, indicating they'd been there for some years.

## 3 AQUATIC WILDLIFE

Abundant tadpoles/toadpoles, and several smooth newts? (*Lissotriton vulgaris*) (Figure 5), infrequent water snails, fairy shrimp? (*Chirocephalus diaphanous*), water slater? (*Asellus aquaticus*), and a white-



coloured anemone-like animal (Figure 6, left), were present in the shallows. Oxygenating weed, and a purple encrusting algae(?) on the undisturbed areas of the silty bottom. Juvenile perch (*Perca fluviatilis*) (Figure 6, right) were seen in the eroded strata of the cliff walls. Some colonies of zebra mussels (*Dreissena polymorpha*) were observed attached to hard surfaces.

## **4 CULTURAL HERITAGE**

Two vertical metal beams were observed to the south side of the quarry that may have been part of lifting apparatus. A cylindrical metal object was seen close by, the purpose of which was not clear. Pipework associated with the former canal pumping barge may be present at the northeast wall. No blockhouses, rails or quarry vehicles were observed.

## **5 REMOVAL AND RECOVERY ACTIVITIES UNDERTAKEN**

A quantity of the following items were removed from the water by hand collection into net bags:

- Plastic drinks bottles, steel and aluminium cans, plastic bags, rope and fishing line, and miscellaneous other small items of household rubbish.

Hand picking of similar items from the surface margins was also undertaken.

A bicycle frame was found close to the entry/exit point in 1 m of water depth that was removed by hand without the use of lifting bags.

No attempt was made to lift the cars due to the difficulty in getting them onshore and offsite.

Disposal of all rubbish was via local authority collection.

## **6 CONDITION OF SITE BEFORE AND AFTER**

Sixteen black bags of litter were collected (the majority from the surrounding park by a team of volunteers from Warwickshire Wildlife Trust); removal by hand picking improved the amenity of the park for users, and removed some underwater hazards.

## **7 FINAL RESULTS**

The quarry provides interesting geological formations above and below the water.

No white-clawed crayfish (*Austropotamobius pallipes*) were seen, but during the survey local residents reported their recent presence. The zebra mussels (*Dreissena polymorpha*) seen are an invasive non-native species.

Litter removed from site included fishing line and rope that had become snagged and lost by fishermen using the site (several were present during the survey). No evidence that the litter was causing harm to wildlife was noted. Plastic bottles and cans were also likely from park users, despite litter bins being provided onsite. Other rubbish was likely to be historical and windblown.

## **8 FURTHER MONITORING REQUIRED**

Future removal of the bicycles, fence post and metal items is feasible with lifting bags. Consideration of removal of the tyre could be made, although these may also provide a refuge for crayfish etc. Further submerged plastic rubbish could be removed from the north side of the quarry. Further investigation of the possible quarry lift and pumping barge pipework would be of interest.

Signage is present in the main carpark and by the water (Figure 7). Consideration could be made to providing additional information for fishermen on the 'check, clean, dry procedure' given the reported presence of white-clawed crayfish in the quarry. Disease precautions are essential to prevent the spread

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of crayfish plague (*Aphanomyces astaci*), which produces free-swimming zoospores that are specific to crayfish and can be carried in water and mud, and on damp fishing equipment.



Figure 1 Weather conditions on site at the start (left) and end (right) of the day.

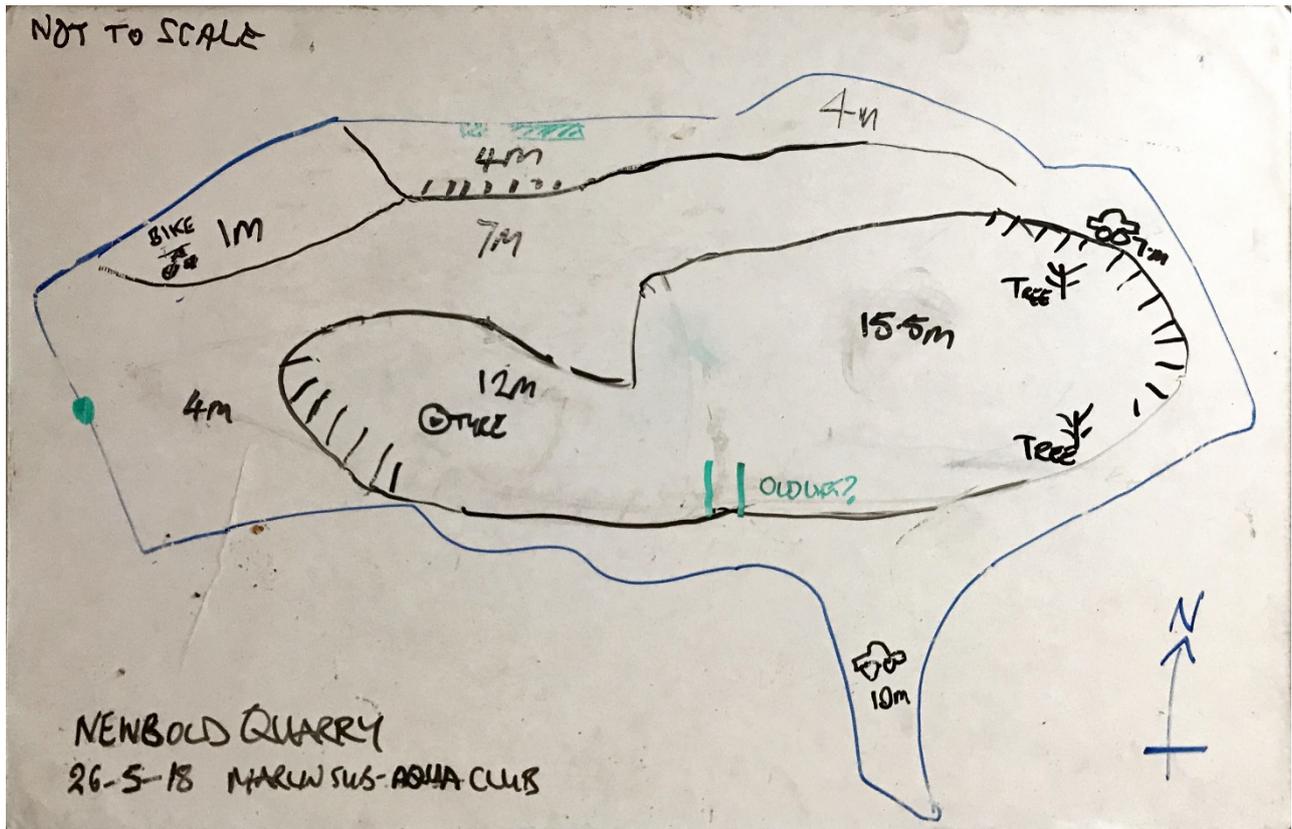


Figure 2 Sketch of Newbold Quarry made on site from the initial survey data.



Figure 3 Underwater environment in the shallow parts of the quarry.



Figure 4 Pram (left) and motorcycle (right).



Figure 5 Smooth newt? (*Lissotriton vulgaris*).

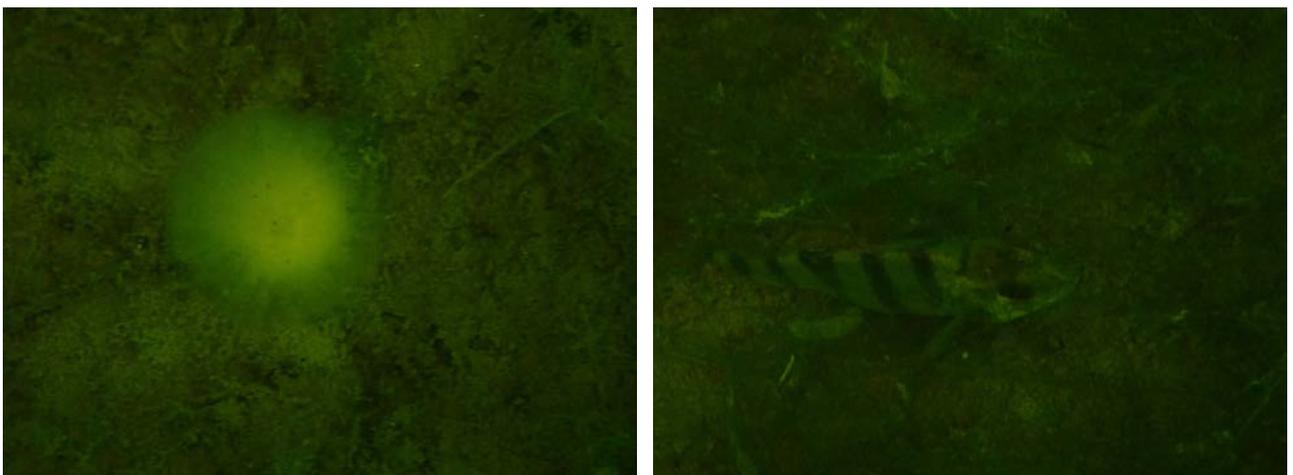


Figure 6 White-coloured anemone-like animal (left) and perch (*Perca fluviatilis*) (right).

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Figure 7 Information boards in the main carpark (left) and near the fishing platform (right).