

Conservation Officer's Report 2022

Various members of the Society continue to engage in conservation initiatives and projects raising awareness of molluscs, particularly through invertebrate conservation projects, not all of which can be reported here. Deserving particular mention is Imogen Cavadino, who in pursuing her PhD on slugs, engaged with and provided training to a huge number of citizen scientists, mostly new to slug recording, and won a much deserved award as joint runner up for "Wildlife recording – terrestrial" at the National Biodiversity Network Awards 2022. The recording project "Slugs Count" generated 21,000 identifications of slug species, resulting in 3,047 records. Congratulations Imogen!

Invertebrate recording generally has benefitted from some increased funding in the past few years. I led two online training sessions and three field meetings with a focus on training in Wiltshire in 2022, through the Action for Insects project managed by Michael New of the Wiltshire Wildlife Trust, see the article in *Mollusc World* 2023 **61**, 28-29.

Martin Willing, on behalf of Conch Soc, concluded the consultation on the 7th Quinquennial Review of Schedule 5 and 8 of the Wildlife & Countryside Act 1981, in February last year. A full history of Martin's involvement with this five yearly review of WCA Schedules was reported in *Mollusc World* 2022 **60**: 12-17), with details of the subsequent listings for mollusc species in Schedule 5, Section 9. We are still waiting for final confirmation from Defra on changes to be implemented through QQR7. Conch Soc are indebted to Martin for his dedication in seeing through this laborious, and iterative process and the benefits to mollusc conservation achieved through the WCA.

There has been a slew of legislative changes and government initiatives, not least the Environment Act 2021, for which the legally binding targets to protect our environment were published in December 2022. The species target [D4: Relative abundance and/or distribution of widespread species](#) is to halt the decline in species populations by 2030, and then increase populations by at least 10% to exceed current levels by 2042. Alongside this is the target to reduce the risk of species extinction [D5: Conservation status of our native species](#). Molluscs are included in these targets and there will be a reporting cycle for which the Society's dataset will be invaluable. The work by Ben Rowson (Non-Marine Recorder) and Simon Taylor (Marine Recorder) on maintaining the Society's dataset, and of course all the recorders for submitting records, is invaluable for highlighting changes in distribution, abundance and threats.

Meanwhile, pressures on important mollusc habitat continue unabated. Norfolk Wildlife Trust (NWT) are leading a campaign opposing the Norwich Western Link Road proposal for a three mile section of dual carriageway that would cross the River Wensum. This has the potential to impact on a population of Desmoulin's Whorl Snail *Vertigo moulinsiana*, an Annex II species, which is found on the margins of the River Wensum SSSI/SAC and is listed as a qualifying feature of the SAC (Special Area of Conservation). *V. moulinsiana* is not the only important species at risk, there are also White-clawed Crayfish, a nationally important Barbastelle bat population, and important invertebrate assemblages in ancient woodland.

Some rare species are so infrequently recorded that even records from known sites are worth mentioning. For instance, over the last two decades, the Society has only received 23 records of Lilljeborg's Whorl Snail *Vertigo lilljeborgi*. On average this is roughly one record per year. The equivalent for the similarly-sized *Vertigo pygmaea* is over 70 records a year! In August Ben Rowson undertook a survey for *Vertigo lilljeborgi* near Porthmadog, on the banks of the river between Merionethshire (VC48) and Caernarvonshire (VC49). This was commissioned by Natural Resources Wales as part of investigations into future flood management in the area. *Vertigo lilljeborgi* was

discovered at the site by Peter Dance in 1970 and has periodically been detected since. The previous survey by Martin Willing showed that it survives only in very low numbers: just 7 individuals, at one small part of the site (Willing, 2009). The 2022 survey, which used the same methodology, found that it is still very scarce: a total of 12 individuals, in two parts of the site (Rowson, 2022b). Martin has been working with NRW on similar *V. lilljeborgi* surveys at other sites in Wales, some discovered by Arthur Chater in the 1980s. The suggestion of new *V. lilljeborgi* sites in central Ireland (Wright, 2022) is therefore intriguing.

Queries on identification continue to come in via social media and email, and also requests for information, such as following the release of a news item [Mussels are disappearing from the Thames and growing smaller – and it's partly because the river is cleaner](#) by Isobel Ollard, PhD Researcher, University of Cambridge. The study found that freshwater mussels have declined by almost 95% since a 1964 survey and that the mussels were smaller and growth rate had fallen by 10%-35% compared to 1964. The study team hypothesised that lower levels of nutrients, such as phosphate, in the river may be part of the reason why mussels are smaller and slower to grow than observed in 1964, when the Thames was more polluted with phosphate. Reduced nutrient content could lead to lower food (algae) availability for mussels and slower growth rates as a result. This study sparked some questions, including at Defra, but it should be noted that the picture is more complicated than this implies, as no data exists on other factors such as nitrates and suspended sediment in the two time periods; there are now invasive species and other threats to habitat, such as dredging and intensive land use along the riverbank, which may also have driven declines. Martin Willing followed up with the PhD supervisor Prof David Aldridge (Dawson Professor of Zoology, St. Catharine's College, Head of Aquatic Ecology Group, Cambridge) and has asked if Isobel would be prepared to speak to Conch Soc on her work.

Also look out for Martin Willing's 'Molluscs' wildlife reports to *British Wildlife*, the latest being Vol **34** (4), February 2023, summarising the discovery of minute fibres of glass from decaying glass reinforced plastic boats found within the tissues of marine molluscs (Ciocan, 2020); and the impacts of climate change on Freshwater Pearl Mussels *Margaritifera margaritifera* (Cosgrove, 2022).

Many thanks to all the members who have contributed to mollusc conservation in 2022, which is many more than mentioned here.

Note that awareness of molluscs, in a rather strange form, may also build following the win at the BAFTA's for "Marcel the Shell With Shoes On", a mollusc movie animation, released in 2021. It is the story of a lonely young snail who goes on a long journey searching for family. In order to enjoy the movie, malacologists everywhere will have to suspend their disbelief at the two little feet (wearing shoes) and one eye peering out of the aperture.

References

Ciocan, C., Kristova, P., Annels, C., Derjean, M. & Hopkinson, L. 2020. Glass reinforced plastic (GRP) a new emerging contaminant – First evidence of GRP impact on aquatic organisms. *Marine Pollution Bulletin* **160**:111559.

Cosgrove, P., Shields, D., Anderson, D., Massey, K., Cosgrove, C., & Sime, I. 2022. The impact of a drought on key Freshwater Pearl Mussel *Margaritifera margaritifera* populations in Scotland. *Journal of Conchology* **44**:241-255.

Rowson, B. 2022b. The status and distribution of Lilljeborg's Whorl Snail *Vertigo lilljeborgi* within Glaslyn SSSI at Pont Croesor in 2022. *NRW Evidence Report No. 649*. Natural Resources Wales, Bangor.

Willing, M.J. 2009. Monitoring invertebrate features on SSSIs: *Vertigo lilljeborgi* on the Afon Glaslyn Floodplain at Pont Croesor, Meirionnydd. *CCW Contract Science Report No. 866*. Countryside Council for Wales, Bangor.

Wright, A. 2022. Molluscs of the Boyne Valley. *Mollusc World 60*: 6-11.

Mags Cousins

24 February 2023