



# FRIENDS OF THE MEADOWS

Newsletter 189

Spring 2013

## Tardigrades



**'Natura maxim Miranda in minimis'**  
(Nature is most to be admired in the smallest)

Tardigrades are microscopic animals commonly known as 'water bears'. These water-dwelling creatures have stocky bodies with eight legs and the gait of a bear. Tardigrades are found all over the world from the Arctic to the Antarctic, from high mountains to deserts and in your back garden where they can be found in moss or lichen. You will be hard pressed to spot water bears as most of them are less than 1mm in length, to observe them you require a low-power microscope although those of you with good eyesight may be able to spot them through a x20 lens. Tardigrada means 'slow walker', over a 1000 species have been described. Water bears mouthparts consist of stylets with which they can pierce plant cells or small invertebrates and feed on the contents. Look up Tardigrades on 'Google Images' some look cute others bizarre.

Tardigrades have earned the title, '**hardest animal on Earth**' as they have evolved strategies that allow themselves to shut down all but essential biological processes when conditions take a turn for the worse; entering this extreme resting state known as cryptobiosis, water bears can survive in extreme environments that would kill almost any other animal. Some can survive temperatures close to absolute zero, - 273 degrees C and temperatures as high as 151 degrees C (the boiling point of water is 100 degrees C). Water bears can survive 1000 times more radiation than other animals and almost a decade without water.

Tardigrades have also survived the vacuum of space in low-Earth orbit. In 2007 water bears hitched a lift into space aboard the Space Shuttle Endeavour, as part of a European Space Agency mission. Within the scope of this mission were a series of experiments named Project Biokiss run by the Italian Space Agency to investigate the effect of short-duration space flight on a number of microscopic organisms including Tardigrades. The experiments investigated how cells physically adapt to cope with extreme dehydration caused by the space vacuum and damage caused by cosmic radiation. Results from this work with water bears will enable researchers to determine how radiation dosage effects the way cells work.

There is so much going on around us of which we unaware, truly,  
**'Natura maxime Miranda in minimis'**.

**Ron Iremonger**

## Notes from the Chair



Welcome to our Spring Newsletter of 2013.

As this season makes its gradual mark, there are many indications to look out for on the Meadows, including the first leafing of many trees to be found there such as the elm, horse chestnut and lime. Andy Ingham compiles our Meadows Log and it will also be interesting to see when the first sightings of a swallow or a young rook are made. Dare we even hope for a cuckoo? Other indications of Spring will be the first brimstone butterfly or the croaking of frogs. To those who make regular, or even occasional walks onto the Meadows, I would encourage you to look and hear for all these signs, and let Andy know so that we can include them in our record.

As mentioned in previous newsletters, the proper management of the Meadows is of great importance and we have been working closely with the Greenspace Ranger to prepare a plan. This will initially involve an ecological survey and then hopefully a full management plan will be prepared. We had anticipated that by now we would have secured funding for this but we are still waiting for this to be approved. Hopefully I will be able to confirm that this is in place by the time we issue the next newsletter.

Once again, we are planning a number of social events this year including a Floral Walk and Barbecue. We are also hoping to arrange a Bat Walk and are looking at the possibility of a River Cruise. More details and dates for these events will be included in the next newsletter. Last year many of you attended and supported these events and we continue to look forward to meeting as many of you as possible.

**Rachel Cross**

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Reed Bunting on the Meadows



## January and February 2013

05/01/2013- On a warm spring like morning 2 Kingfishers were observed flying down a swollen ditch along Bottoms lane track. The sunlight catching the turquoise feathers as they disappeared over the hedgerow.

A Woodcock, possibly disturbed by a dog walker flew over Dukes land before crashing into the copse below Andrew Crescent.

12/01/2013 A large Pike approximately 70/80 cm in length became marooned in one of the fish spawning areas. The Pike may well have entered the pool on a rising tide and as the water levels lowered became imprisoned in the shallow waters. The demise of the Pike though is certainly good news for any ducklings born on the river this year.

19/01/2013 Brown Rats by their very nature are not the most popular animals inhabiting the banks of the river Dee. By the weir, 3 Rats clambered over the water wheel rather like Hamsters on a giant wheel.

20/01/2013 Fieldfare numbers have by and large been lower than usual this winter and this may be down to a poor Sloe crop. However, 30 plus Fieldfare were attracted to apples laid out on a snow covered lawn in Andrews Crescent. DL

15/02/2013 Under the guidance of Amanda Pritchard the Green Space Ranger, a couple of hours were spent removing willow and scrub on the upper terraces of Gorsty bank. Care was taken not to remove any of the more valuable native species as this quiet corner supports a rich array of wildlife. Whilst working in glorious sunshine we were treated to the emergence of a Peacock Butterfly, Queen Bee out of hibernation and also a Common Frog jumping through the grass.

A bit of pollarding was undertaken along the water's edge opposite the sailing club. This was also done under the guidance of Amanda Pritchard as the river bank is protected by its status as a Special Site of Scientific Interest (SSSI).

16/02/2013 Bullfinch have increased in numbers over recent years and are now a familiar sight in the hedgerow bordering the Meadow. 7 birds flitted around the top of the Hawthorn on Gorsty bank, a further indication of this increase.

17/02/2013 Nest boxes were cleaned out in readiness for the spring as both Blue tits and Great Tits appear to have already paired up. Great Spotted Woodpeckers were also drumming, Song Thrush and Dunnock singing from the hedgerow and male Reed Buntings staking out territories around the Meadow. (see photo on page 2).

28/02/2013 Redpoll frequently feed on Alder along the river bank during the winter months. When this seed is exhausted they become a welcome addition to the garden bird feeder. 3 Lesser Redpoll visited Nyger seed in Anne's Way. TD

All spring and summer sightings welcome.

**Andy Ingham**  
Meadows Log Recorder 01244 677135

# Chester Croquet Club



## Summer's coming, make the most of it!

Welcome for new members and learners

After a long, wet summer and autumn last year and a dreary winter, everyone must be looking forward to warmer days and longer evenings. Now's the time to plan ahead. Why not try your hand at croquet? Perhaps you have played garden croquet with family or friends and would like to learn more about the game. Perhaps you have hung up your boots after playing a more strenuous sport and would like to switch to a game that involves challenge and skill but does not require the strength and stamina of more energetic activities. Perhaps the children have left home and you find you have more time for a new outdoor leisure activity. Perhaps you have just retired and would like to try something new. With its handicapping system, croquet is a game that can be played and enjoyed on equal terms by men and women of all ages and abilities.

Chester Croquet Club meets in Westminster Park off Hough Green in Chester. It is a friendly and successful club with about a hundred members and is always pleased to welcome new members of all standards from absolute beginners to more experienced players.

The next beginners' course will be held on Thursday evenings from 6.30 to 8.30 pm for six weeks from 2 May to 6 June 2013. The fee for the course is £30 but is free for new members joining the club at a full subscription of £52. Coaching is also available for people who have played before and would like to improve their skills.

No previous knowledge of the game is needed and all equipment will be provided by the club. The only requirement is that players must wear flat-soled shoes.

If you would like to enroll or would like more information, please contact the course coach, Janet Davies, on 01244 350370.

**Come and join in and make the most of the summer**