



Lesser Silver Water Beetle

Local Biodiversity Action Plan

LESSER SILVER WATER BEETLE (HYDROCHARA CARABOIDES)

Associated Habitat Action Plans:

Pond



Ecology

Appearance

Lesser silver water beetles can grow up to 15mm in length and are black in colour. The reason for the name 'silver' is also the reason behind them surviving underwater. The beetle has tiny hairs on its underside and these hairs are used to trap bubbles of air this forms a vital part of their elaborate breathing system.

Habitat

The adults prefer still, weedy, deep ponds and ditches in peaty areas where the peat is unlikely to dry out. The adults also seem to prefer these areas to be subject to disturbance. However the young and eggs are most often found in shallow ditches, which are often temporary and have overhanging vegetation.

Food

The lesser silver water beetle adults feed on decaying plant matter whereas the larvae are carnivores and feed on water snails.



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Life Style

- * Whilst the silver water beetle is not very well adapted to water life and is not a very good swimmer, the adults are very good fliers.
- * The adult beetles hibernate and emerge during summer.
- * Eggs are laid during spring or early summer, with the larvae found floating just below the surface of the ditch water between May and July.

Current status

The lesser silver water beetle is known to be present at several localities in the Cheshire region. Since the discovery of an adult in a Cheshire pond in 1990, nine known breeding ponds have been identified. It is considered that these may be the only known breeding sites of this species outside the Somerset Levels (Kirby, 1994). Habitat preferences include ditches, ponds and small standing water bodies (Kirby, 1994).

The lesser silver water beetle is listed as Endangered in the Red Data Book of Insects (Shirt 1987). The beetle is included in Schedule 5 of the Wildlife and Countryside Act (1981) and included on the middle list of the Biodiversity: The UK Steering Group Report. A national Biodiversity Action Plan is included in the UK Biodiversity Group Tranche 2 Action Plans Volume IV - invertebrates (1999).

Original national targets have been met and LSWB was removed from the UKBAP priority list during the 2007 review.

Threats

- * Disturbance to habitat, e.g. inappropriate pond clearance.
- * Habitat degradation, e.g. eutrophication due to agricultural runoff.
- * Infilling of ponds.
- * Introduction of fish to ponds.
- * Inappropriate development. For example, it has been reported that a new owner at Brookhouse Farm has replaced cattle with sheep and put in new drainage. These measures could adversely affect the suitability of the pond for *Hydrochara*.

How are we helping to conserve the Lesser Silver Water Beetle in the Cheshire region?

Continued monitoring of existing sites.



Records held by rECOrd.

Objectives, targets and actions

The objectives, targets and actions to help conserve the Lesser Silver Water Beetle in the Cheshire region can be found on the [Biodiversity Action Reporting System \(BARS\)](#) along with full details of our progress so far.

How to find out more about the Lesser Silver Water Beetle

UK BAP for the Lesser Silver Water Beetle - www.ukbap.org.uk/UKPlans.aspx?ID=377

BugLife Action for Invertebrates - www.buglife.org.uk/html/project_action.htm

BugLife Guide to Wildlife Law and Invertebrates - www.buglife.org.uk/html/wildlife-law/conserving_wildlife_law10.htm

Contact details

LBAP Chair Andy Harmer

National Lead Partner Balfour Browne Club

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References and Glossary

Foster, G.N. & Eyre, M.D. (1992): Classification and Ranking of Water Beetle Communities, Joint Nature Conservation Committee.

Guest J and Bentley DP (1995-8) Pond Life Project Critical Biodiversity Survey, Pond Life Project, Liverpool John Moores University, Liverpool.

Guest, J. (1997): English Nature Research Report No. 248: 1996 Survey of the lesser silver water beetle (*Hydrochara caraboides*) in Cheshire, English Nature.

HMSO (1995): Biodiversity: The UK Steering Group Report, Volume 1: Meeting the Rio Challenge, London.

HMSO (1995): Biodiversity: The UK Steering Group Report, Volume 2: Action Plans, London.

Hyman, P. & Parsons, M. (1994): A Review of the Scarce and Threatened Coleoptera of Great Britain, Part 1 UK Nature Conservation:3, Joint Nature Conservation Committee.

Kirby, P. (1992): Habitat Management for Invertebrates: A Practical Handbook, Royal Society for the Protection of Birds.

Liverpool Museum - Recorder information.

Kirby, P. (1994): Habitat Fragmentation: species at risk. Invertebrate group identification. English Nature Research Report No. 89, Peterborough.

Parsons, M. (1987): Invertebrate Site Register: Review of Invertebrate Sites in England: Cheshire, Report no. 95, part 1&2. Nature Conservancy Council.

Shirt, D.B. (Ed.) (1987): British Red Data Books: 2. Insects. Nature Conservancy Council.



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English Nature (1999). UK Biodiversity Group Tranche 2 Action Plans Volume IV - invertebrates. D C Boyce. A study of the distribution and ecology of the lesser silver water beetle *Hydrochara caraboides* on the Somerset Levels. English Nature Report No. 591

http://www.arkive.org/species/ARK/invertebrates_terrestrial_and_freshwater/Hydrochara_caraboides/

