Identifying Freshwater Invertebrates for Biological Surveying and Recording

The location of many of John Constable’s paintings, Flatford Mill runs over 120 Natural History and Arts courses in a unique and tranquil learning environment.

Course Overview

This course is designed for anybody seeking to improve their knowledge of freshwater macroinvertebrates, of sampling methods and identification skills; they can be a conservation manager, an ecological consultant or an amateur naturalist. It affords the opportunity to improve microscope technique and learn about wet preservation of specimens. Discussion of aquatic ecology and the life cycles of individual species will help develop an overview of freshwater ecosystems. Samples collected on field trips, together with preserved specimens, will form the basis of laboratory workshops to develop identification strategies and improve your confidence in using keys to a level appropriate to your own needs, be this to family or species. You will be able to use a full range of published keys whilst course notes and copies of some unpublished keys will be provided for you to keep and use in any future monitoring work.

Course Description

The field trips and lab sessions will enable you to build up species lists for the sites you visit. At the end of the course you will be shown how to use this data to calculate several biological indices which can be used to measure the conservation value of a freshwater site, prior to developing management strategies. You will also be given, and shown how to use, a copy of SAFIS, the analysis software written by
the tutor. For any future survey work this will automatically calculate the relevant indices simply by typing in a species list. The software also provides distribution and habitat information and can help indicate incorrect identifications.

Whilst on the course you will receive a password to a section of the tutor’s website from which you can download any future additions or modifications to the course documentation. In this way past students are kept up to date with any changes in the UK freshwater fauna and can download software updates.

**What the Fee Includes?**

Residential course fee includes:
- Full board accommodation including cooked breakfast, picnic lunch, homemade cakes and an evening meal. Vegetarian and other dietary option available.
- Up to 8 hours teaching time a day, plus relaxing breaks for meals and refreshments.
- Tea and coffee making facilities available throughout the day.
- Use of resources including library, workrooms, studios and the Centre grounds.
- Transport during the courses.
- Insurance to cover cancellation, personal belongings, personal accident, legal liability and medical emergency.

If you choose to be a non-resident on a residential course, the fee will include all the above except accommodation and breakfast.

**About the Tutor**

Adrian Chalkley has been developing this course for the FSC since 2007. He began studying aquatic life over 40 years ago and having taught for 34 years now works as an independent aquatic consultant. Since 1985 he has been the Suffolk recorder for freshwater invertebrates, building a species database for the county. A long standing member of the Freshwater Biological Association, he is a contributor to the various national recording schemes and a verifier for iRecord. He has a particular interest in Beetles, Mayflies, Caddis Flies, Aquatic Bugs, Molluscs, Leeches and also runs the Water flea Interest Group [www.cladocera.org.uk](http://www.cladocera.org.uk). His Twitter page at [https://twitter.com/Box_Valley](https://twitter.com/Box_Valley) contains many examples of his invertebrate photography which will help gauge the quality of course content.

For more information prior to booking email Adrian on: tutor@boxvalley.co.uk
What to Bring

Although all collecting equipment is provided many students prefer to bring personal items, such as a 10x or 20x hand lens for field use, a pencil and notebook. For field work Wellington boots will be needed to work in the water. Health and safety equipment will be available from the Centre but you may wish to bring a personal pair of household rubber gloves and a bottle of alcohol based hand gel. Further health and safety information is available before the course on the tutor’s own website (see below). It is well worth keeping your own preserved, identified specimens but you will need to bring tubes or other suitable containers. In order to take away electronic copies of unpublished keys, course notes and software as well as a large collection of papers and other information you will need a memory stick for download.

Recommended Reading
There are too many keys dealing with species level identification of the various invertebrate groups to list here. The books below are broader in scope and hence more relevant to the beginner. The first three are particularly recommended in order to get to grips with family level identification of a wide range of freshwater invertebrates and far more accurate than general naturalists’ guides.

Freshwater Biological Association Publications (www.fba.org.uk)
S Pawley, M Dobson & M Fletcher - SP 67 A Guide to British Freshwater Macroinvertebrates for Biotic Assessment
M. Dobson, S. Pawley, M. Fletcher & A. Powell - SP 68 Guide to Freshwater Invertebrates
Field Studies Council (http://www.field-studies-council.org/)
PS Croft - A Key to the Major Groups of British Freshwater Invertebrates

The two FBA keys are up to date and either are highly recommended with SP68 being the more comprehensive of the two. Croft was published in 1986 but is still very useful and less expensive. The following is out of print but is good preliminary reading and can often be found secondhand:
Helen Mellanby - Animal Life in Fresh Water Chapman & Hall

To get an idea of the range of specialist keys available visit the FBA and FSC websites listed above and follow the links to publications. In addition a page of useful links is available on Adrian’s website, together with any further information about his courses which will be updated from time to time.

Please visit: http://www.boxvalley.co.uk/ and follow the link to ‘FSC Courses’.
How to book

Bookings can be made by telephoning the Centre; we are open 0930 – 1700 weekdays and most weekends. Alternatively, bookings can be made via our website: www.field-studies-council.org.

Start and Finish times

Check in is from 1300 on Tuesday, the course begins at 1400, refreshments will be available in your workroom, however please bring some lunch for this first day. Dinner is at 1830 (with the bar open from 1815).

Residents: Please aim to arrive between 1300 and 1330 on Tuesday to allow us sufficient time to show you to your accommodation and around the communal areas.

Non-residents: You do not need to arrive quite so early but please can you be here by 1330 as we need to show you the communal areas as well.

The course ends at 1600 on Friday.