

Invertebrate Recorders of the Future

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The Field Studies Council



Bringing Environmental Understanding To All



- Derrygonnelly
- Titanic Quarter Belfast
- Kindrogan
- Millport
- Rhyd-y-creuau
- Dale Fort
- Orielton
- Margam Park



- Castle Head
- Malham Tarn
- Preston Montford
- Bishops Wood (Day)
- Flatford Mill
- Juniper Hall
- Nettlecombe Court
- Slapton Ley
- Amersham (Day)
- Epping Forest (Day)
- London (Day)



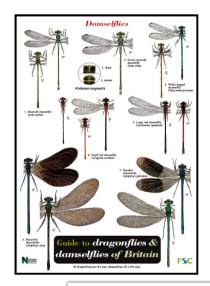


The Field Studies Council

FSC



Bringing Environmental Understanding To All

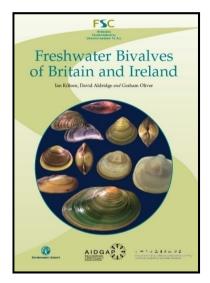


Lobsters, Mud Shrimps and Anomuran Crabs

Ray W. Ingle Marit E. Christiansen

















FSC Biodiversity Projects Timeline







2006	FSC Biod
2007	O Herita
2008	o 2006-
2009	FSC Inve
2010	

2011 2012

2013

2014

2015

2017

2018

2019

2021

2022

diversity Training Project

- age Lottery Fund
- 2010

ertebrate Challenge

- Heritage Lottery Fund
- 2011-2014

FSC Biodiversity Fellowship

- Defra Fund for Biodiversity in the Voluntary Sector
- 2013-2014

FSC Tomorrow's Biodiversity

- Esmée Fairbairn Foundation
- 2013-2017

FSC BioLinks

- Heritage Lottery Fund
- 2016-2017 Development Phase
- 2018-2022 Delivery Phase







People

- Generational skills gap – young adults are a priority
- Lack of structured training pathways to enable volunteer recorders to develop

Communities

- Select training centres should be developed as hubs for local recording community
- Integration of project into existing recording community pivotal to ensuring legacy

Natural heritage

- Lots of species group under-recorded due to difficulty in identification
- Site managers unable to access or interpret invertebrate data







The FSC BioLinks Project – Where?















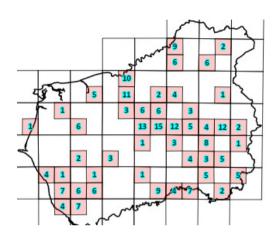






Going Digital













Eco How: How to make a mini spi-pot



February 11, 2016

×

Body flattened

Body length (mm)

no ×

Grannular appearnace

Trident no ×

All

Sex

Ecology

Ocularium

Body

Saddle visibility

indistinct * Palps

Chelicerae

Saddle shape paired dark apata X Paroligolophus agrestis

Evidence balance positive

3.1

Opilio saxatilis

3.1

Opilio parietinus 3.1

Paroligolophus meadii 2.7

Dicranopalpus ramosus 2.1

Mitopus morio var ericaeus 2.1

Mitopus morio var morio

Evidence balance negative

Mitostoma chrysomelas -0.7

Nemastomella bacillifera -0.7

Sabacon viscayanum ramblaianum -0.7

Odiellus spinosus -0.7

Nemastoma bimaculatum -2.5

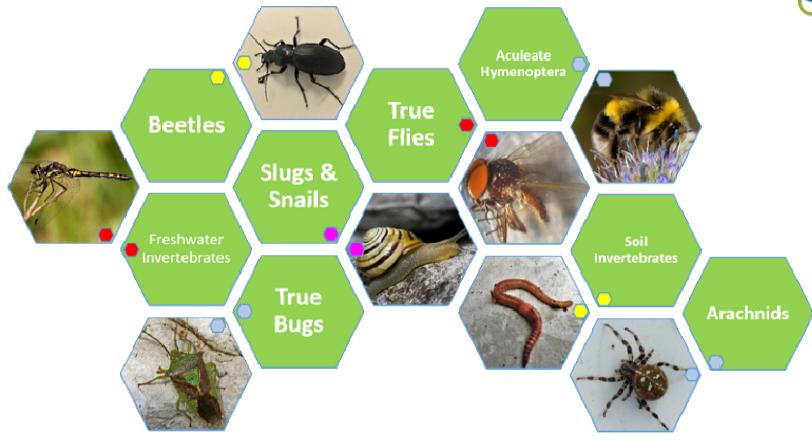
Trogulus tricarinatus

Anelasmocephalus cambridgei





Championing Invertebrates



Introductory

National Expert





Strengthening the network



Blue = ideal minimum professional level – skills are cumulative up the pyramid

The Botanical Field Skills Pyramid

7. Outstanding – good national referee for a limited taxonomic or habitat group – may write monographs, review taxonomic groups, supervise research students' projects on a species

6. Excellent ID skills – likely to be commissioned nationally for surveying a particular group. Likely to publish. Would probably keep a reference collection.

Green = recorders/field surveyors with national status

Minimum level for teaching professional ID courses.

5. Very good ID skills – in one group or more – more-or-less totally reliable for a site survey for that group – would expect to identify any rare species or hybrids or take youchers for ID.

Would be expected to record at least 75% of their taxa within a site

Would be expected to know about legislation and automatically have appropriate licence. Always uses scientific names

Minimum level for agency employee or consultant and for NVC. Minimum level for FSC associate tutor for noncredit teaching

4. Good ID skills in one group – could be commissioned to survey a site for vascular plants but may miss sub-species and hybrids.

Reasonable on grasses, sedges and ferns. Member of relevant recording society Should automatically submit records. Should use mostly scientific names.

Ideally, schemes and societies should aim for this as the minimum for active recorders and VC recorders

Minimum level for FSC tutor. Minimum level for a recorder to have their records accepted. Phase 1 survey level 3. Reasonable ID skills – some flowering plants, some common grasses, sedges or ferns – an improver. Should be aware of relevant national recording society. May be a member. May submit records locally. Uses common names usually.

2. Some ID skills – can ID common flowering species, for example but not capable of producing a comprehensive site list. No grasses, sedges or ferns, but some rushes. May have attended on courses but not familiar with collecting and refereeing of voucher specimens. Unlikely to be a member of relevant

Can include the 'village expert', and may lead informal walks

1. Basic ID skills – can recognize a buttercup, daisy or plantain. No grasses, sedges or ferns. May not have attended any sort of training course in identification, but intends to work/record in that area. Usually not a member of BSBI. Probably unaware that they are at this level but would like to be at one of the above levels (often a recent undergraduate).

recording society although may be a member of a local recording group. Uses common names.

0. General populace with no current engagement in field botany

Sarah Whild and Sue Townsend, University of Birmingham 2005 revised 2007

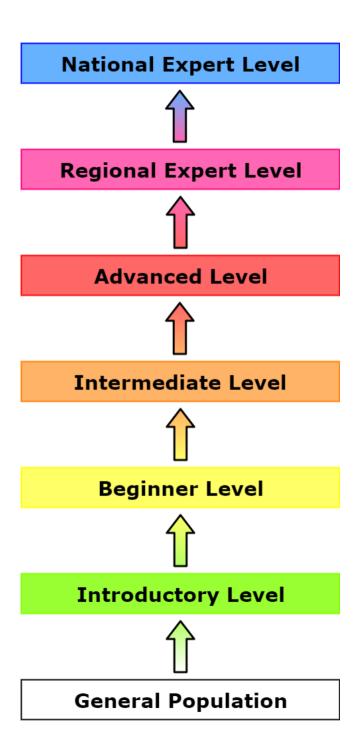
Volunteer training pathway

Knowledge

Skills

Motivation

Confidence



Knowledge Skills Motivation Confidence Confident in ability to National authority Acts as national champion Expert knowledge of arding the identification identify those groups in for an invertebrate order invertebrate order, with of a taxonomic group and which has specialist and promote to wider good identification skills specialist knowledge in at nowledge. Acts as verifie cientific and non scientific ast one taxonomic group garding whole order. Ca or anomalies, new specie audiences. Passionate Expert on an international level. ssess identifications using to UK/science and cryptic Level about inspiring others to Up-to-date knowledge of collections and species species. Able to design study and record an changing taxonomy and descriptions Able to aining programme and ac vertebrate order. Proud to s ambassador for regional national species checklist. produce identification inspire and recruit others. resources experts Personally passionate Able to identify most Detailed knowledge of about building Confident in ability to species within several invertebrate order with identify those groups in comprehensive regional ifficult-to-identify groups, specialist knowledge and national datasets. which has specialist Regional including all local species ncluding regional species Motivated to inspire other knowledge. Requires Expert Some identification skills verification for some of the omposition) in at least one recorders in the local area. for all taxonomic groups Level taxonomic group. Good Collatos rogional rocords noro difficult species. Able within an order and able to knowledge of regional and submits them through to teach and consistently use a range of taxonomic variation and rarities. a recognised data flow support others. kevs pathway... Detailed ecological Passionate about ensuring Able to identify most Confident in ability to (including habitat data is cathered to raise species within several preferences/plant awareness of underidentify some difficult-totaxonomic groups ssociations) and species corded invertebrates and identify species groups. ncluding some difficult-to-Requires verification for Advanced understands conservation composition knowledge of lentify groups. Competen everal taxonomic groups cryptic and some nonvalue of recording data using microscopes and within an invertebrate deticient aroups. Submits native species. Able to sourcing/selecting order, Good knowledge of cords regularly through support others, including axonomic keystaxonomic recognised data flow other groups within the local beginners. keys. pathway. invertebrate order. Good understanding of Detailed ecological and which groups/species are Confident in ability to Able to identify most species composition under-recorded and identify easy-to-identify species within a small nowledge of a taxonomic motivated to help improve species groups and easy-to-identify taxonomic Intermediate group within an egional/national datasets. distinctive species. group. Moderate invertebrate order Demonstrates motivation Requires verification for Level experience in using Moderate knowledge of through record submission more difficult groups and microscopes and other groups within the via a recognised data flow cryptic or non-native taxonomic keys. invertebrate order. pathway to ensure use of species. personal records. Able to identify Knowledge of ecology and Understands that many nvertebrates to order level Little confidence in ability to characteristics of most invertebrate groups are reliably identify species and and distinctive species invertebrate orders. under-studied. May submit Beginner within small easy-tomay only submit records Moderate knowledge of records of easy to identify identify taxonomic that have been verified by species composition and groups and recognises that groups. Little experience of an individual with greater ecology of some taxonomic they are contributing to a using microscopes and knowledge national database aroups taxonomic kevs. Basic level of knowledge Able to identify General interest in ittle confidence in ability to ome invertebrates to order nvertebrates. May submit regarding the ecological eliably identify species and Introductory functions of some level and few or none to ad hoc species records for that personal records will Level invertebrate orders species level. No distinctive species in e of any significant use to Awareness of basic experience of using sponse to citizen science a national recording xonomy (e.g. existence of microscopes and intiatives aimed at the scheme. orders, families, species) taxonomic keys general public. General General population with little involvement with invertebrate identification and recording. Population

National Expert Level



Regional Expert Level



Advanced Level



Intermediate Level



Beginner Level



Introductory Level



General Population

The FSC Tomorrow's Biodiversity Project 'Spider Training Model'

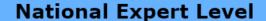
Advanced Spider Identification

Spider Identification Using Microscopes

Field Identification of Spiders



Learn To Love Spiders





Regional Expert Level



Advanced Level



Intermediate Level



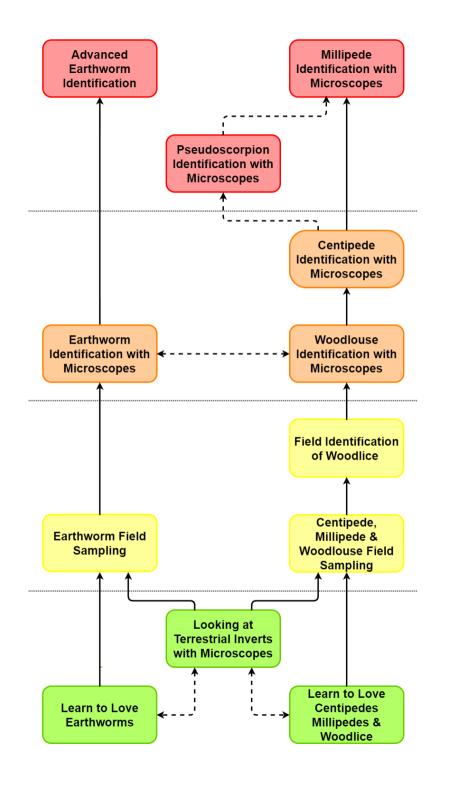
Beginner Level



Introductory Level



General Population







Beginner Level

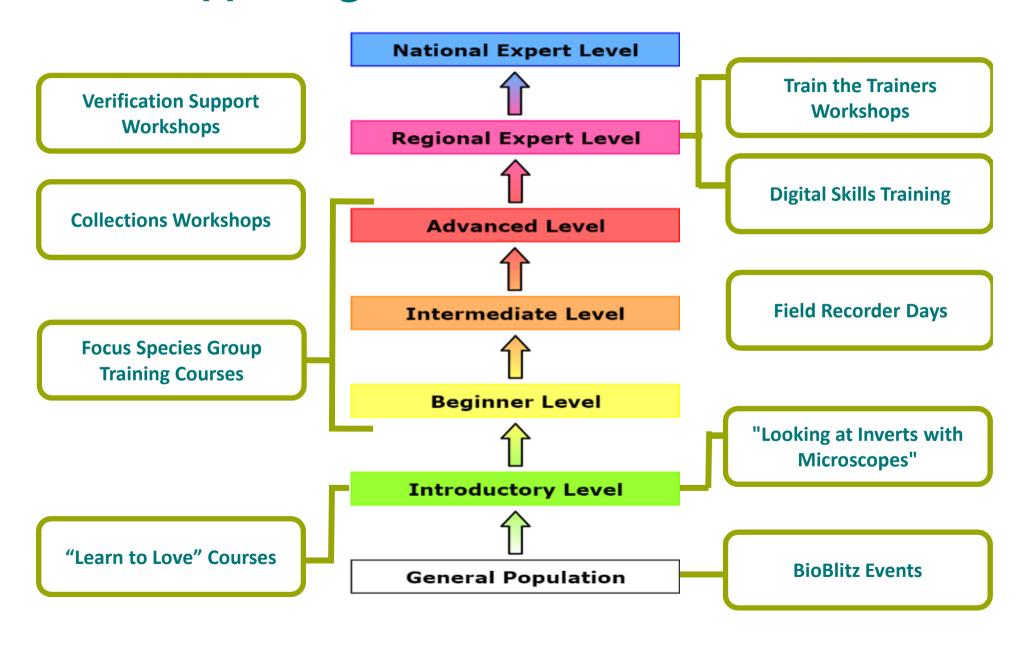


Introductory Level

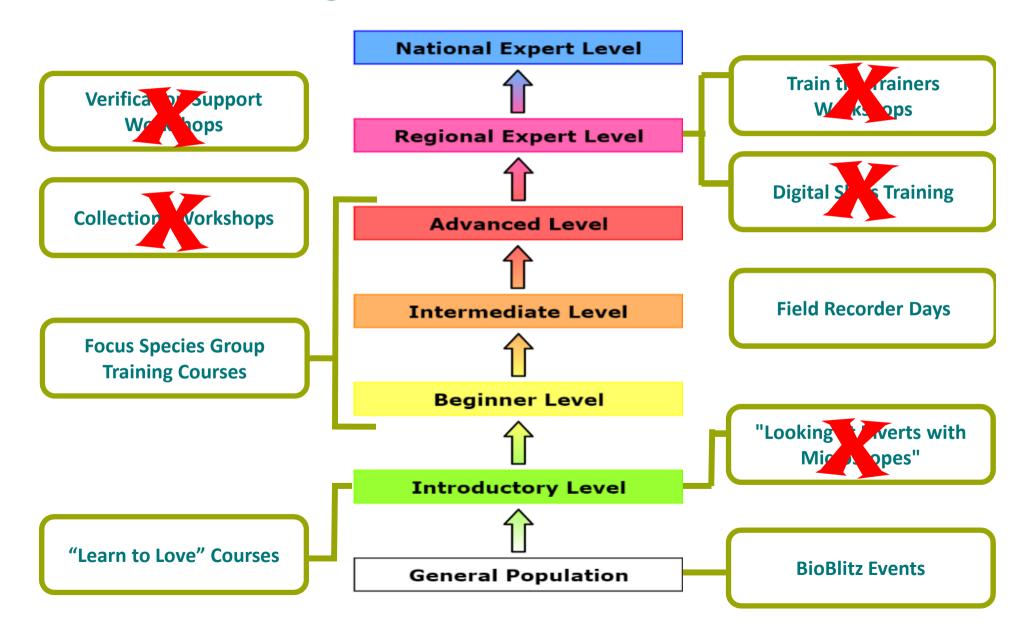


General Population

Supporting the Recorders



Biological Records









 FSC BioLinks volunteer recorders record invertebrates on site

FSC BioLinks staff collate records and produce invertebrate assemblage list

Invertebrate Assemblage List







Habitat Quality
Assessment

• Site manager uses Pantheon to undertake habitat quality assessment for site invertebrate assemblages







Sign up to our newsletter for more information

Sign up to the FSC BioLinks e-Newsletter to hear about events when they're open to bookings:

www.fscbiodiversity.uk/biolinks-signup

