This year’s Brad Ashby Memorial lecture, arranged jointly between the LNHS and the BEHNS, was given by NBN’s 2019 Terrestrial Wildlife Recorder of the Year, Dr Ian Wallace. Of course, because this is 2020, the lecture was a bit different – it was virtual, beamed into the homes of over 200 people, thanks to our friends at the Field Studies Council who provided the technology. We're sure Brad Ashby would have approved!

Inspired by Caddis... Adding value to biological records



Dr Wallace, of course, is well known for his enormous contribution to the understanding and recording of the humble caddisfly, which he has studied for over 40 years. Here, in his lecture entitled ‘Inspired by Caddis: Adding Value to Biological Records’, he shared his wide-ranging knowledge of caddisflies and thoughts about the future and potential of the recording, not just of caddisflies, but also of other riverflies.

He also shared the limelight, bringing in expert opinions from Sharon Flint (Caddisfly group), Martin Harvey (Biological Records Centre, Centre for Ecology & Hydrology), Dr Mike Howe (Senior Invertebrate Specialist for National Resources Wales) and Craig Macadam (Buglife and organiser of the Mayfly and Stonefly Recording Scheme).

Dr Wallace opened by discussing the Distribution Atlas of Caddisflies and asked: if we know the distribution of the caddisfly, why should we continue with recording? The answer is simple really – there is always new information to be gleaned; and spatial resolution can be improved, the use of new technology can be adopted and adapted, improved/standardised methodology can be introduced, and so on. He then went on to expand on these potential avenues, both with his thoughts and through interviews with his guests.

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Mystacides azurea (c) Mick Massie

Biological records, Wallace argued, can be taken further, and be made more valuable. Survey records could include more information on how specimens are collected and recorded, and number of specimens could be noted. More information on their context could be provided – what was the habitat? Microhabitat? What else was found in association? All of this information could be very useful, not least because, as Martin Harvey pointed out, biological records fit into broader research such a climate change studies and help form policy. Craig Macadam, suggested that the recording of different species together, such as riverflies (including stoneflies, mayflies and caddisflies), could help, for example, in promoting freshwater conservation.


Glyphotaelius pellucidus eggs © David Howdon

In the second part of the lecture, Dr Wallace covered biology, and yes that means the sexy bits too. Except, what do we really know about caddisflies and their mating habits? Well, not enough really. It turns out, they like to court in the dark, at night, when most of us are sleeping. Night-vision goggles may (seriously) play a role in future surveying, as will other new technology and data collection and analyses.

Dr Wallace discussed the huge gaps in our knowledge in the biology of caddisflies from eggs to larvae to adults. More detailed survey records could go a long way in our understanding of the various stages of the caddisfly lifecycle.

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In the end, recording of caddisflies has to be more than just ‘dots on the map’. As Sharon Flint said, we need to learn and record more about their biology and behaviours in order to better understand them. Martin Harvey also pointed out that records should be more than just gap filling. It is also important to record in areas already surveyed previously. Dr Howe made a similar point – survey data needs to be updated over time. This way, trends can be analysed over time as well as space to understand population levels, as just one example.



Recorder motivation is also a factor – people record for a number of different reasons – curiosity, conservation, numbers of records, recording of neglected groups, because they really like caddisflies. Whatever their motivation, they play a key role in our understanding of caddisflies, and could provide even more information regarding caddisfly biology, changing distributions, microhabitat preferences, etc through the recording of further information. When we start to look at all of the information that should be and could be recorded, and the potential of that data in terms of further research and in directing future conservation policy decisions, it is difficult not to be inspired by caddis!

Author: Anke Marsh, London Natural History Society
Published: 13/12/20

The lecture was given live over the web at 2.00pm on Saturday 7 November and is now available to watch via the LNHS YouTube channel.

The questions we never got to....

I struggle comparing the genitalia drawings in Bernard and Ross with my specimens. Is there something I need to do to prepare specimens? *Neil*

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The diagrammatic approach of B & R is problematical; for many, especially for the males. Females are with a very few exceptions very good as they have fewer bits. I make sure my material is softened, traditional KOH clearing is not necessary for B & R use for most species. I put them into a fairy liquid solution about three times the strength used for washing up for a couple of days. There are very expensive continental guides, and a free on-line guide for Hydropsyche a known horror genus for females. There was a proposal for the FBA to re-issue the diagrams o the 1974 Macan Key but it stalled and the FBA is in the middle of Furlough, Covid and moving premises but will ask again about progress. Feel free to get back.

My question is about the increasing amounts of micro plastic we are finding in cases of the caddis [we are do the ARMI riverfly on Little Ouse and Thet rivers.] Do you know much about the effects of micro plastics on caddis? *Claire*

I suggest searching Trichoptera and micro plastics in Google Scholar and follow some papers there. For the larger pieces, there is concern that caddis may choose the large pieces of micro plastic and the cases will become lighter and wash away more easily. Possibly an over-stated danger. I am unaware of any work on the impact of the really tiny stuff in caddis bodies, but that is the big question really for everything including us. Thinking of medium sized pieces. Some caddis have a sophisticated grinding and filtering valve that might be damaged if pieces were not identified as a mineral particle to be rejected- pure speculation. There was an Irish researcher who was hoping to set up a project to analyse caddis cases as a possible way of monitoring micro-plastics in water, however I think it has been trumped by Covid research as I was warned might happen. I am a little worried that as some caddis are known to select particles that are the same as the particle they have last used successfully that it could result in over-recording of micro-plastics. Basically, a developing field of interest.

I have been trying to buy "Edington, J. and Hildrew, A. 1995. Key to the Caseless Caddis Larvae of the British Isles with Notes on Their Ecology. FBA Scientific Publication to replace the one I have lost, but without any luck after trying all the natural history bookshops (none on ebay, amazon, pemberley books etc.). I was wondering if you know where I might be able to buy a copy of the book to enable caseless caddis larvae identification for some volunteer aquatic invertebrate surveys I am conducting or if you could recommend another key? *Dan*

The problem is that I am years over-due re-writing the key so the FBA has been satisfying requests such as yours with photocopies. The FBA is dealing with Covid, Furlough and moving premises but I will ask again why this service seems to have ceased.

Author: Dr Ian Wallace
Published: 13/12/20

In Memory of Charles Bradwin Ashby 1920 - 1994

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Brad Ashby was a member of the LNHS from 1939 to 1994, becoming President for 1989 and 1990. He was first a member of the LNHS Council in 1945 as a key member of the Ornithology Section together with an important role in ensuring the success of the Society's 1957 publication The birds of the London Area since 1900. Despite this birding background, Brad was to change his prime interest away from ornithology to entomology and then ecology.

Brad was a member of the Entomology committee from the 1960s and Secretary of the Ecology & Entomology committee (1984-1994) and made that section central to LNHS activity. Perhaps the most lasting result was the series of papers under the heading of the London Atalanta which were available for all the membership. He was a very positive President and extremely keen on ensuring a high standard of the Society's publications. Also he was determined for the Bookham Common surveys to continue and indeed expand.

In 1985 he proposed the joint meetings which have successfully continued to this day.

Click here to read Brad's full obituary (in London Naturalist Volume 73) on the Biodiversity Heritage website

Author: Michael Wilsdon, London Natural History Society
Published: 13/12/20

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