

What are Important Invertebrate Areas?



Left: Three Cliffs Bay © Allan Hopkins (CC BY-NC-ND 2.0), Right: Black Mountains, Talgarth © Les Haines (CC BY 2.0)

Important Invertebrate Areas (IIAs) are nationally or internationally significant places for invertebrates and their habitats. They are a vital tool to help conserve our most threatened species and assemblages. They can help to direct conservation efforts for invertebrates and to ensure better decisions are made to restore sustainable populations of them.

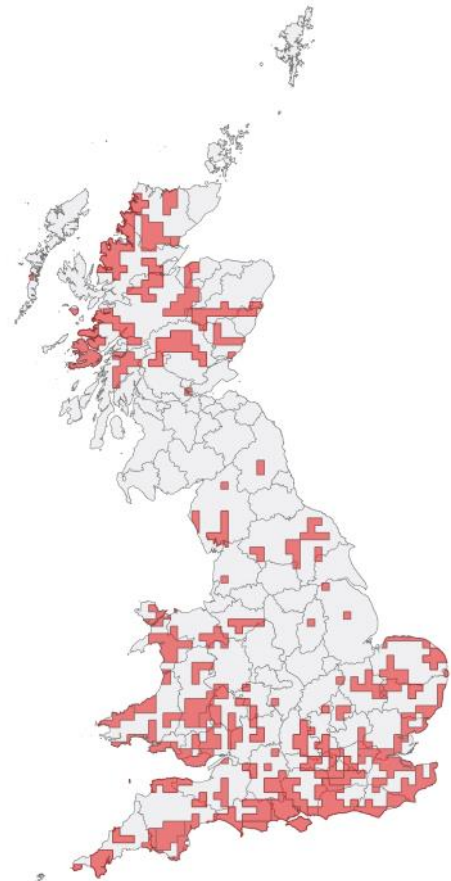
Why do we need IIAs?

Great Britain is home to over 40,000 invertebrate species. They are vital to our lives, underpinning the ecosystem services which provide us with food, fertile soils, clean water, and the wildlife-rich habitats which we all enjoy. However, many invertebrates are declining in response to widespread habitat loss and fragmentation, urbanisation, changing land management practices, pollution, invasive non-native species and many other factors. It has never been more important to encourage sustainable populations of invertebrates and prevent the extinction of invertebrates in the UK.

To secure the future for invertebrates, it is essential to know where our most threatened species and assemblages live. Throughout Britain, some of our well-known and high-profile places for invertebrates benefit from formal protection, but is protecting this small selection of sites sufficient in the face of the current pressures facing our wildlife? These sites cannot be viewed in isolation, but as part of a landscape scale approach to invertebrate conservation, which encourages positive action for invertebrates. We need Important Invertebrate Areas.

How were IIAs selected nationally?

The network of IIAs was identified using a wealth of data from national invertebrate recording schemes - over 45 million records from 80 national expert recording schemes. Modern status reviews of invertebrate threat and rarity, alongside



Map of national IIA hectads (10km x 10km squares)



Left: Sedge Jumper (*Attulus caricis*) © Mark Gurney (CC BY-NC-SA 2.0), Right: Scarce Yellow Sally Stonefly (*Isogenus nubecula*) © John Davy-Bowker

expert opinion, were used to identify a suite of IIA qualifying species. Nationally, a hectad (10km x 10km squares) qualifies as part of an IIA if it either:

- Supports a species that is Critically Endangered nationally, Endangered at the global or European level, or is an endemic species. These are our rarest or most threatened species, meaning there is a special responsibility to act and conserve them. [Or](#)
- Supports a nationally important assemblage of rare or threatened species.

These hectads were then grouped into recognisable named IIA areas such as the New Forest, South Wales Valleys or Strathspey. It is important to note that habitats outside of IIAs can still be home to rare and threatened invertebrates in need of conservation. New data and status reviews will continue to become available - which is why the IIA methodology is designed to be repeatable in future years, to respond to the changing state of our invertebrate populations. This process was advised by a steering group of invertebrate, recording and data experts.

Mapping IIAs

Although identifying the most important hectads for

invertebrates nationally was an important first step, these large grid squares include many areas that are of less importance. To make sure that IIAs can truly reflect the best areas for invertebrates, a fine-scale map is required, underpinned and guided by local expertise and knowledge.

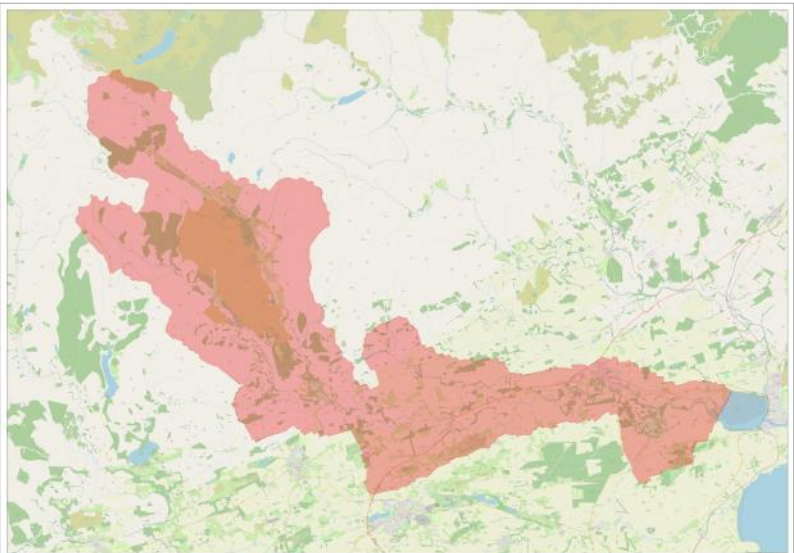
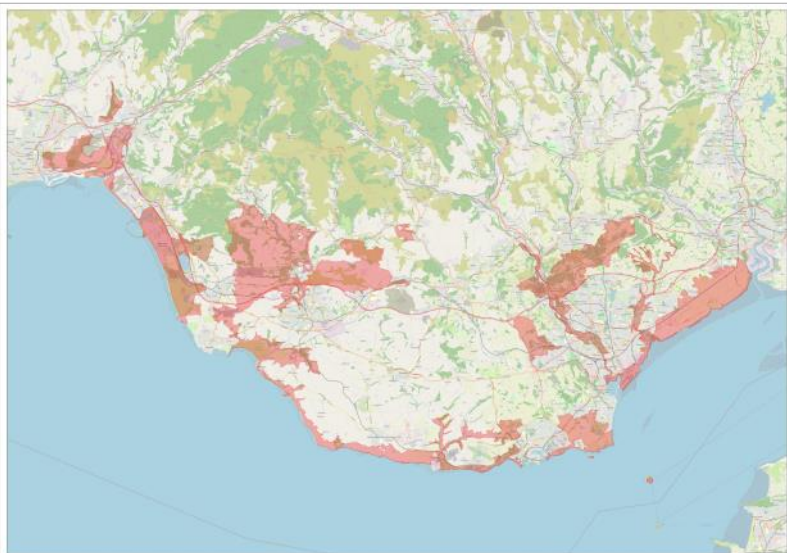
For IIAs qualifying for a single species of greatest concern, this was relatively straight forward. However, for large and complex IIAs, data was obtained from Local Environmental Records Centres and merged with the national data to create maps of qualifying species records that were scrutinised by local entomologists and naturalists. This produced fine-scale maps that accurately reflect the key invertebrate interest and the core habitats that support them on the ground.

Making IIAs accessible

Once an IIA has been fine-scale mapped it will be made both accessible and understandable by:

- Adding it to the interactive online IIA map.
- Sharing an IIA profile document that will characterise its habitats and importance to invertebrates. The profile will also flag up key species and assemblages, as well as the local threats and opportunities affecting invertebrates in the landscape.

Left: South Wales Coast IIA supports a nationally important assemblage of invertebrates, Right: South Esk IIA supports the Critically Endangered Freshwater Pearl Mussel (*Margaritifera margaritifera*)





Left : Pearl-bordered Fritillary (*Boloria euphrosyne*) © Andrew Cooper, butterfly-conservation.org, Right: The centipede *Hydroschendyla submarina* © Tony Barber

- Sharing the downloadable fine-scale map in various formats including PDF, Google Earth and GIS files.

How can IIAs help invertebrates?

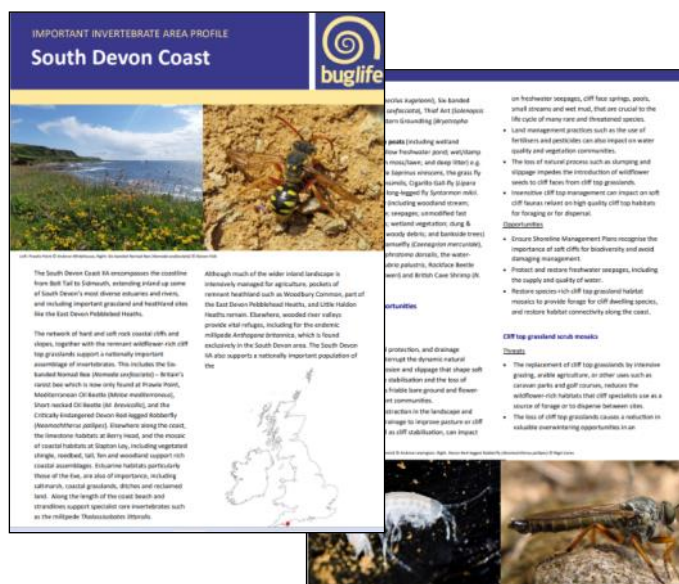
Supporting the recovery of invertebrates can be complicated – there is a huge diversity of species, all with different lives, different ecological needs, and different distributions. One aim of the IIA programme is to make this easier – to take complex technical information and translate and distil it into a format which is accessible and useful. This will ensure that ecologists, planners, local authorities, statutory bodies, conservation organisations, land managers and other decision makers are able to better understand the importance of the landscape for invertebrates and make better informed decisions to support nature's recovery. A completed suite of IIA maps and profiles will enable:

- The effective focusing of invertebrate conservation efforts across Great Britain to where it is needed most. This includes the coordinated management of specific habitats for species and assemblages across sites within IIAs.
- A review of the effectiveness of Protected Area Networks such as Sites of Special Scientific Interest in representing the most important sites for invertebrates
- Better planning outcomes for invertebrates, by helping to recognise important habitats for invertebrates at the earliest opportunity.
- Landscape-scale strategies such as nature recovery networks to better incorporate the needs of

invertebrate species so opportunities to support species recovery are not missed.

- Profiles to be raised for invertebrate communities, including less well-known species and groups.
- Promotion of often overlooked and small-scale habitat features that can be important for invertebrates but are often neglected.

Over the coming years a complete network of fine-scale maps, profiles and guidance documents will be produced to inform decision making and made available through the Buglife website. For more information and updates visit: <https://www.buglife.org.uk/our-work/important-invertebrate-areas/>.



South Devon Coast IIA profile document

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