



ANNUAL REVIEW 2007



“If we and the rest of the back-boned animals were to disappear overnight, the rest of the world would get on pretty well. But if the invertebrates were to disappear, the world’s ecosystems would collapse”

Sir David Attenborough

A word from our Chair

I am very pleased to be able to report another highly successful year at Buglife. During 2007 we established a presence in Scotland.

Thanks to Scottish Natural Heritage, we were able to recruit a Scottish Officer who, together with the Initiative for Scottish Invertebrates, will develop the first ever strategy for the conservation of Scottish invertebrates.

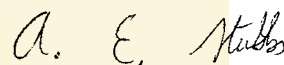
2007 was the year of The Big Bumblebee Hunt! Despite exceptionally poor weather during the summer, hundreds of people got out and about spotting bumblebees in their gardens and local green spaces. Through this project, funded by Cory Environmental Trust in Britain, Buglife was able to get the public in south east England actively involved in conserving bumblebees.

Coastal soft rock cliffs are an important, yet neglected, habitat for many rare invertebrates. Our three-year 'Managing Coastal Soft Cliffs for Invertebrates' project, funded by Esmée Fairbairn Foundation, came to an end during 2007 with the publication of the definitive report on managing, protecting and enhancing the invertebrate wildlife of soft cliff sites. Two of our other long term projects to conserve brownfield invertebrates, and engage the local people with Canvey Wick SSSI have continued to progress well. During the year, thanks to the support of the Esmée Fairbairn Foundation, Buglife's Grazing Marsh Ditches Project got off to a flying start. Through this project

we will better understand how to maintain the rich invertebrate assemblages of ditches.

Buglife had a key role to play in the development of the revised UK Biodiversity Action Plan priority species list, which now contains 430 invertebrates. Our new part-time Biodiversity Action Officer is now helping guide the biodiversity process in relation to invertebrates. Good news this year is that the habitat 'open mosaic habitats on previously developed land' has been officially recognised as a priority for conservation action. This formal recognition comes after Buglife's very successful campaign to highlight that some brownfield sites (previously developed land) have become critically important refuges for endangered invertebrates. The listing of this most highly threatened habitat should help to secure its future.

As ever Buglife simply could not have achieved so much without the continued support of our members, funders, friends and other supporters, as well as an enthusiastic and talented staff. A special mention goes to our many volunteers who provide their time or services to us free of charge. In particular I would like to thank the trustees who have served on the Board during the year for their dedication and great professionalism.



Alan Stubbs
Chairman

BIODIVERSITY ACTION!

In September 2007 the new UK Biodiversity Action Plan priority species list was published. The list, which sets out the species that are formally recognised as being priorities for conservation action, will guide future biodiversity conservation action. The new list contains 430 invertebrates from marine, terrestrial and freshwater environments, all of which need urgent action to save them. Buglife had a key role to play in the development of this new list by helping to co-ordinate the review of invertebrates. New invertebrate species added include the Moss carder-bee (*Bombus muscorum*), the Trembling

sea mat (*Victorella pavida*) and the Mud snail (*Omphiscola glabra*).

With the publication of the list there is an even greater need than before to ensure that action is taken to conserve species under threat. In late 2007 Buglife employed a Biodiversity Action Officer to work closely with other organisations to guide the biodiversity process in relation to invertebrates. This officer, funded by the Esmée Fairbairn Foundation, the John Ellerman Foundation and a legacy gift, will work with our member organisations to ensure that target setting, action planning and subsequent action implementation are delivered for invertebrates on the list.



WEST THURROCK MARSHES – THE CAMPAIGN GOES ON

Buglife has been continuing to fight tooth and claw for the wildlife of this nationally important site, threatened since 2006 by a proposed Royal Mail distribution warehouse. Our campaign against the development – including a petition, political lobbying and national media coverage – has so far brought the site and its rare bugs a two year stay of execution.

In the early part of 2007 Buglife met with then Prime Minister, Tony Blair, to present a petition of over 2,500 signatures calling for West Thurrock Marshes to be protected. We explained to Mr Blair that the site is home to over 1,200 species of bug, bird and reptile, many of them extremely rare.

During 2007 Buglife launched legal proceedings against the development. This was an extremely daunting step

for us to take, and we only did so after taking extensive legal advice. We consulted a leading environmental solicitor, who identified a number of irregularities in the grant of planning permission. These included failures to take account of national planning policy and deliberate downgrading of environmental impacts. We have put together a strong case and this will come to Court in early 2008.

Meanwhile four more of the site's rare species have been listed as UK conservation priorities, taking the total to seven. Recently Thurrock Council proposed that the site could be used as a new environmental park. Whether the diggers can be held off long enough for that to happen remains to be seen – but whatever the outcome, Buglife has done everything it could to save this extraordinary wildlife site on the banks of the river Thames.

THE BIG BUMBLEBEE HUNT 2007



This summer Buglife opened up the fascinating world of bumblebees to a whole new audience. Months in the planning, Buglife's Big Bumblebee Hunt was officially launched in mid-June and hundreds of people in London, Essex and the Thames Gateway set about observing and recording bumblebees in their gardens and local open spaces. Despite exceptionally cold, wet weather over the summer months, we had over 2500 visits to the Big Bumblebee Hunt website, and hundreds of people from across London, Essex and the Thames Gateway sent in their bumblebee sightings. Over 500 people came along to workshops and guided walks, and joined experts to discover more about bumblebees.

To make the survey as easy to take part in as possible we produced a simple survey form for identifying colour groups of bumblebees. Participants told us that the bumblebees they most commonly saw were 'two-banded white tails' (e.g. White-tailed bumblebee (*Bombus lucorum*)), with the 'browns' (e.g. Common carder bee (*Bombus*

pascuorum)) coming in as the runner up. 'Three-banded white-tails' such as the Garden bumblebee (*Bombus hortorum*) were also seen regularly. The 'black red-tails' and the 'banded red-tails' (e.g. Red-tailed bumblebee (*Bombus lapidarius*) and Early bumblebee (*Bombus pratorum*)) were the least commonly seen types of bumblebees. The exceptionally wet summer certainly appeared to hamper the bumblebees' activities. Some of those who took part found that bumblebees were very thin on the ground - this was especially so on overcast or wet days. Importantly, we had sightings of rarer bumblebee species. The Brown-banded carder bumblebee (*Bombus humilis*), which is a Biodiversity Action Plan priority species, was recorded in Mile End, in East London. This was an exciting find as it was the first confirmed record for this area.

Thanks to the support of our funders, especially Cory Environmental Trust in Britain and Anglian Water, the Big Bumblebee Hunt got hundreds of people out of doors, observing their local wildlife. The project raised awareness of different types of bumblebees, the threats facing them today, and of the importance that gardens, open spaces, brownfield sites and other urban areas can have for bumblebees and other invertebrates.



Right: Common carder bee (*Bombus pascuorum*)

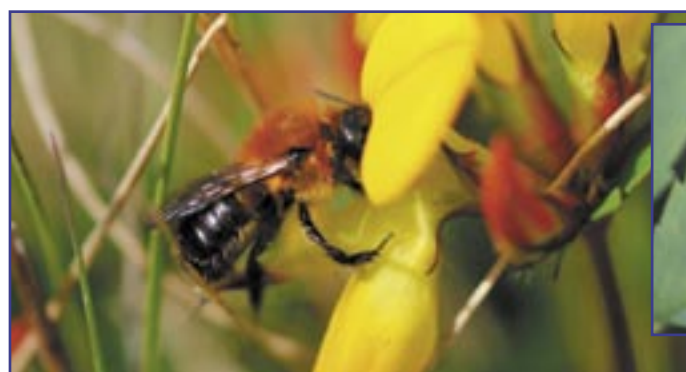
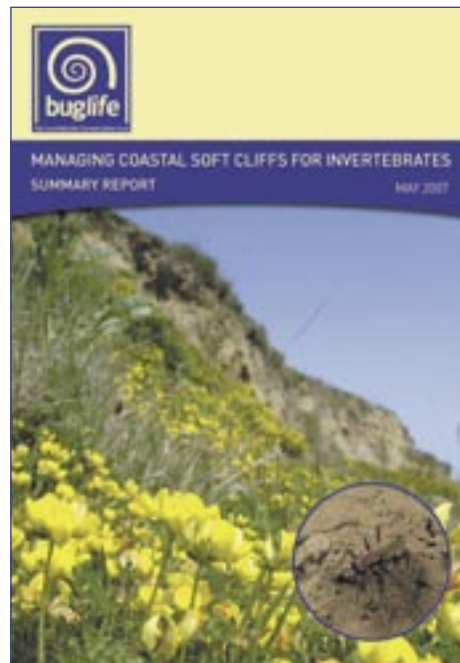


MANAGING COASTAL SOFT CLIFFS FOR INVERTEBRATES

Coastal soft rock cliffs are an important, yet neglected, habitat for invertebrates. They support a rich variety of invertebrate wildlife and are a refuge for many rare and specialised species. Amongst these species are a number of UK Biodiversity Action Plan priority species including the Cliff tiger beetle (*Cylindera germanica*), the Large mason bee (*Osmia xanthomelana*), and the Glanville fritillary butterfly (*Melitaea cinxia*). Soft cliffs are maintained by processes of land slippage and coastal erosion. However, due to a lack of recognition for their nature conservation interest many coastal soft cliffs in the UK have been altered or lost behind coastal protection schemes, or degraded through artificial drainage or insensitive cliff top management.

2007 saw the conclusion of a three year project, funded by the Esmée Fairbairn Foundation to raise awareness of the importance of soft cliffs for invertebrates. The project, undertaken by project officer Andrew Whitehouse, collated data on the invertebrate biodiversity of soft cliff sites around the UK for the first time. We intensively surveyed 36 sites which increased the available data for many regions and raised the profile of soft cliffs amongst those involved in nature conservation and coastal

management. Buglife also published the report 'Managing Coastal Soft Cliffs for Invertebrates' which describes the importance of coastal soft cliff sites for invertebrate conservation in the UK, identifies a number of current and future threats to soft cliff sites, and provides management guidance for protecting and enhancing the invertebrate faunas of soft cliff sites. Regional gazetteers provide further detail and specific site management recommendations.



Left: Mason bee, *Osmia uncinata* and Northern damselfly (*Coenagrion hastulatum*) – both found exclusively in Scotland.

BUGLIFE SCOTLAND

In 2007 Buglife was able to expand its conservation work into Scotland. In the early part of the year we established an office in the historic city of Stirling, already home to Butterfly Conservation and the Bumblebee Conservation Trust offices. Stirling is now the only city in the world that can boast of hosting the offices of three invertebrate conservation charities! Buglife's Scottish Conservation Officer, Craig Macadam, is funded by Scottish Natural Heritage and the post has been established in partnership with the Initiative for Scottish Invertebrates.

Scotland has a distinctive invertebrate fauna and we aim to get people involved in finding out about both the more common and rarer species, such as the Great yellow bumblebee (*Bombus distinguendus*) and the Northern

damselfly (*Coenagrion hastulatum*). Buglife will develop a plan for the conservation of Scotland's unique and diverse invertebrate fauna, and take action to raise awareness of Scotland's invertebrates. The year has progressed well. In October a group of over 80 invertebrate and conservation experts from across Scotland, and wider afield, met to discuss the development of the plan. The meeting was widely covered in national and regional press, as well as on local radio.

Buglife has continued to work this year with the Badenoch and Strathspey Conservation Group to highlight the plight of invertebrates on a development site near Carrbridge. This area of bog woodland is home to a number of rare and endangered invertebrates including the Narrow-headed wood ant (*Formica exsecta*) and we are continuing to fight to conserve the invertebrates of this important site.



ALL OF A BUZZ IN THE THAMES GATEWAY



Left & above: Land that has previously been used by industry can become a great habitat for wildlife

'Brownfield' sites are areas of land that have been altered by human activity. Often they are derelict sites that were once used by industry. On the most wildlife-rich brownfield sites the cycles of disturbance and abandonment by people, combined with a low nutrient content, has led to the development of a wide variety of habitats and plant species all in the one location. This suits many invertebrate species as they often have life-cycles, with different requirements at different stages,

needing two or more habitats that are close to one another.

In the Thames Gateway, areas of dense urbanisation surrounded by the intensive agriculture of the greenbelt has resulted in little space for wildlife; wildlife that, owing to the hot, dry climate of the Thames Gateway, is often found nowhere else in the country.

Our 'All of a Buzz in the Thames Gateway' project, led by Greg Hitchcock, is mapping and assessing brownfield sites for their importance for invertebrate biodiversity.

By the end of the project in March 2008, almost 500 sites, covering an area of over five thousand hectares, will have been assessed. Through more detailed site surveys we have discovered some very significant invertebrate sites and gathered thousands of records of invertebrates, including UK Biodiversity Action Plan and Red Data Book species. We have even discovered a few species new to Britain!

Our findings suggest that one of the main threats to populations of rare invertebrates found on brownfield sites is the lack of biodiversity information feeding into planning. A planners pack will be produced that will be sent to all local authorities in the region. This pack will help local authorities be better able to properly identify and protect sites that are important for invertebrate biodiversity.

INVOLVING THE COMMUNITY AT CANVEY WICK SSSI

Buglife's second brownfield project, on Canvey Wick, is essentially one of community engagement, with dedicated Buglife officer, Claudia Watts, promoting the site and its fabulously diverse wildlife in the local area. Canvey Wick is a 93 hectare site in south Essex that Buglife campaigned to save. In 2005 the campaign came to a successful conclusion when Canvey Wick was designated a Site of Special Scientific Interest (SSSI).

Events on Canvey Wick this year have included not only bug walks celebrating the beautiful butterflies and rare bumblebees, but also walks discovering the interesting mix of native and non-native plants that have sprung up on the site, and a winter bird walk led by the RSPB. Schools have also been actively involved in the project, with several primary school classes doing minibeast hunts on the site and others learning about different types of invertebrates back in the classroom. Buglife has continued to work closely with Natural England, EEDA and local volunteer groups such as the Castle Point Wildlife Group to establish an ongoing programme of

practical habitat management activities to ensure that the site will continue to provide the right conditions for the invertebrate life to thrive.

Publicity about Canvey Wick has increased throughout the life of the project. This year the site was featured on Alan Titchmarsh's 'Nature of Britain' on BBC1 and on the ITV London series 'Thames Wildlife Superhighway' where Buglife staff were interviewed about the importance of such sites for rare bumblebees.

Right: Canvey Wick Site of Special Scientific Interest.





CONSERVING FRESHWATER INVERTEBRATES

Freshwater habitats are home to a wide variety of invertebrates, but many of these are declining in the face of threats such as pollution and abstraction. This year, thanks to funding from the Garfield Weston Foundation, Buglife has been able to recruit a new Freshwater Officer, Vicky Kindemba, with the remit of overseeing Buglife's freshwater conservation work.

During the year Buglife's 'Ecological Status of Grazing Marsh Ditches' project has got off to a flying start, with extensive surveys of the Gwent and Somerset Levels. Ditches weave through grazing marsh land in many parts of the British countryside, creating a network of freshwater life. Buglife's three year survey of grazing marsh ditches will look at the effects of changes in management on invertebrates living in ditches, and will suggest management techniques that will help conserve the rare species living in them. This year, over 10,000 invertebrate records were made of 349 species, including numerous Nationally Scarce and Red Data Book species.

We produced final reports for our project on the flies of exposed riverine sediments during 2007. This project focused on three UK Biodiversity Action Plan (BAP) species: two stiletto flies and one crane-fly species. The survey greatly expanded on the areas where the two stiletto flies species were previously known to occur, and the Southern silver stiletto-fly (*Clorismia rustica*) was recorded for the first time ever in Scotland! To add a twist to the project, the BAP Crane-fly studied, actually turned out to be two species, with most previous records wrongly identified! However, the true species was found on river in Devon and this record was reconfirmed. This important work has shown sandy sediments at river edges to be rich in fly species and have an important conservation value. 850 fly species were recorded, 87 of which were nationally rare or scarce species and six species that are new to Britain.

BUGLIFE OUT AND ABOUT

Getting out and about gives us an opportunity to meet with our supporters, to answer bug-related queries, and to tell people about what they can do to help conserve invertebrates. This year we attended a number of events, and for the first time we visited the Royal Show, where we were able to talk with farmers about how they can manage their land to encourage beneficial invertebrates. We also visited the British Fly Fair International and spoke to anglers about our work to conserve riverflies. One of our event highlights of the year was at the national Birdfair event when Buglife won the coveted award for best conservation stand!



THE TWELVE BUGS OF CHRISTMAS

In winter 2007 Buglife teamed up with the children of St Augustine's Junior School, Peterborough, to record a new version of a traditional Christmas song – 'The Twelve *Bugs* of Christmas'. The recording, kindly sponsored by Norwich and Peterborough Building Society, celebrated the huge variety of amazing bugs, or invertebrates, which live around us.

The song was accompanied by images of bugs and was featured on Buglife's website and on YouTube, where it received over 2400 viewings. The song received a wide range of enthusiastic media coverage. It was featured on Radio 4's Today programme, Radio 2, ITV's Anglia News and covered in local and national press. Through the recording Buglife was able to spread the word that without invertebrates much of our festive fare (such as cranberries, nutmeg and even chocolate!) simply would not exist.



BRINGING AGGREGATE SITES TO LIFE

This year Buglife has begun work on an exciting new project to conserve invertebrates on aggregate extraction sites, such as quarries and pits. Many of the UK's best nature conservation sites are on old aggregate sites, and as active sites come to the end of their working lives, they present great opportunities for creating suitable habitats (such as bare ground and wildflower-rich open vegetation) for bees, butterflies, beetles, spiders and other invertebrates. Aggregate and mineral sites can support many rare and scarce species, including many which are listed on the UK Biodiversity Action Plan such as the Five-banded weevil wasp (*Cerceris quinquefasciata*), the Heath tiger beetle (*Cicindela sylvatica*), and the Dingy skipper butterfly (*Erynnis tages*).

The importance of aggregate sites for invertebrates is poorly understood. Although sites can support an amazing diversity of invertebrates both during and after



Left: Heath tiger beetle (*Cicindela sylvatica*).

extraction activities, invertebrates are rarely taken into account when decisions are made about the future of aggregate sites. As a result, the full nature conservation potential of sites is often missed. Through this project, funded by Natural England through Defra's Aggregates Levy Sustainability Fund, Buglife will raise awareness of the value of aggregate sites for invertebrates thus helping to ensure their long term survival and sympathetic management. In spring 2008, Buglife will produce the first dedicated guidance on how to manage aggregates sites for invertebrates.

THE MINIBEAST ROADSHOW

The Minibeast Roadshow funded by the Ernest Cook Trust, gave children in Peterborough primary schools the chance to learn about bugs close up! Buglife worked with children from 14 schools to educate them about invertebrates in a hands-on and fun way. The Minibeast Roadshow spent a full day at each school, with activities tailored to each school's requirements. Often we held school assemblies, and then worked with individual classes discovering bugs, observing them, and learning about them. During after school sessions, parents were able to join us to find out more about invertebrates, themselves. Our thanks goes to Martin Rapley, The Bug Man, who worked in partnership with us and who helped make the project the enormous success it was.



RAISING AWARENESS OF BUGS UNDER THREAT



The Streaked bombardier beetle (*Brachinus sclopeta*) is known from a single site in the UK. This year it faced becoming Britain's first known extinction of the new Millennium, as its Thames-side home faced development. A last ditch attempt was made to move the beetle, only months before the site was developed.

The Streaked bombardier beetle stuns predators with a chemical spray (hydroquinones and hydrogen peroxide) which it fires out of special glands in its bottom; these react explosively when they mix. Charles Darwin once had his tongue burnt by a beetle, and experts believe it could have been a similar bombardier! Buglife drew attention to the plight of this beautiful and explosive little beetle with coverage in the Telegraph, the Independent and the London press.

BUGLIFE – BUILDING SUPPORT FOR INVERTEBRATES

Media coverage enables us to raise awareness of the threats facing invertebrate biodiversity.

During the past year we have had:

31 Radio interviews

65 Articles in magazines and local newspapers

36 Articles in national newspapers or online national newspapers

3 National TV interviews

4 Regional TV interviews

INVERTEBRATES ARE IMPORTANT

Invertebrates are vitally important to a healthy planet – humans and other life forms could not survive without them. The food we eat, the fish we catch, the birds we see, the flowers we smell and the hum of life we hear, simply would not exist without bugs. Invertebrates underpin life on earth and without them the world's ecosystems would collapse.

Invertebrates are facing an extinction crisis

Today, thousands of invertebrate species are declining and many are heading towards extinction. World wide 150,000 species could be gone by 2050 if we do nothing. In the UK alone we have lost:

Bumblebees: 3 species are extinct, 15 others have gone from many parts of the country.

Butterflies: Over 70% of species are declining significantly.

Riverflies: Have declined by 66% in recent years.

Each invertebrate species plays a critically important role in the web of life. Once lost, they cannot be replaced. Many invertebrates have incredible life stories yet to be told, and we literally don't know what we are on the brink of losing.

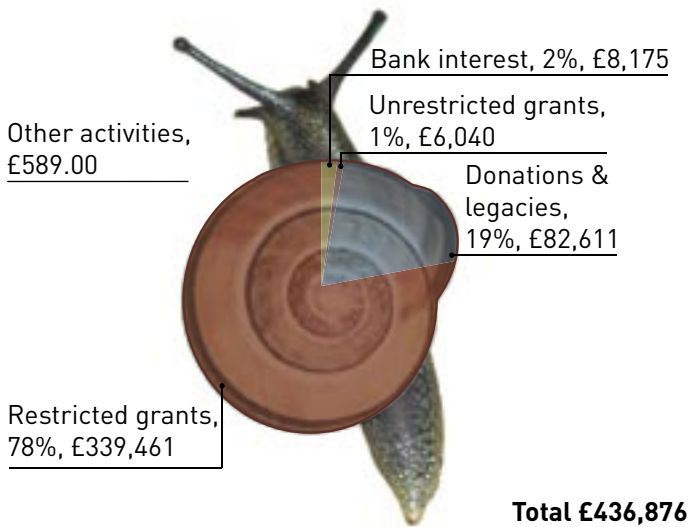
Buglife is the only organisation in Europe committed to the conservation of all invertebrates.

The funding we raise enables us to:

- Protect invertebrates and their habitats
- Campaign for bugs and the environment
- Involve people in conservation action

YOUR IMPACT ON OUR FINANCES

BREAKDOWN INCOME



BREAKDOWN EXPENDITURE



A BIG THANK YOU

To the many people and organisations who have given us so much support and help this year. Our members, who have contributed enormously to our core work, our staff and volunteers who have worked tirelessly to promote invertebrate conservation, and our trustees who have enthusiastically and professionally overseen Buglife.

Thank you to the following organisations that have made grants:

Aggregates Levy Sustainability Fund, Antony & Noreen Daniel Charitable Trust, A S Butler Charitable Trust, City Bridge Trust, Cecil Pilkington Charitable Trust, Colin Reid Countryside Trust, Cory Environmental Trust in Britain, Countdown 2010 Biodiversity Action Fund, Countryside Council for Wales, Courtyard Farm Trust, DEFRA, Durham Biodiversity Partnership, Ernest Cook Trust, Environment Agency, Esmée Fairbairn Foundation, Essex Environment Trust, Garfield Weston Foundation, Heritage Lottery Fund, Holbeche Corfield Charitable Settlement, The J & JR Wilson Trust, The John Ellerman Foundation, John Spedan Lewis Foundation, The Lever Trust, Manifold Trust, Natural England, Scottish Environment Protection Agency, Scottish Natural Heritage, SITA Trust, Wild Trout Trust.

We would also like to thank our Corporate Supporters:

Anglian Water, Arabella Miller, Norwich & Peterborough Building Society, Jaddcards, Martin Rapley - The Bug Man, Greenfield Consultancy & Training, Green Passion Creative, Wild Windmill, Evolve Branding, Healthlines, and Sweetapple.

Thank you also to the family of Oliver

Hardiment. Oliver cared passionately about wildlife conservation and the natural world. His legacy gift is helping to fund our Biodiversity Action work.

Buglife is the only organisation in Europe devoted to the conservation of all invertebrates, and we are actively engaged in saving Britain's rarest little animals, everything from bees to beetles, and spiders to snails. There are more than 32,000 terrestrial and freshwater species in the UK, and many of these are under threat as never before. Our aim is to halt the extinction of invertebrate species and to achieve sustainable populations of invertebrates.

We are working hard to achieve this through:

- Undertaking practical conservation projects that will contribute to achieving our aim.
- Promoting the environmental importance of invertebrates and raising awareness about the challenges to their survival.
- Assisting in the development of legislation and policy that will ensure the conservation of invertebrates.
- Developing and disseminating knowledge about how to conserve invertebrates.



- Encouraging and supporting invertebrate conservation initiatives by other organisations in the UK, Europe and worldwide.

President: **Germaine Greer**
Vice-president: **Nick Baker**
Vice-president: **Edward O Wilson**
Vice-president: **Steve Backshall**

Director: **Matt Shardlow**

Chairman: **Alan Stubbs**



The Invertebrate Conservation Trust

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