

WORLD HERITAGE LIST

Nomination Form

Convention concerning the protection of the world cultural and natural heritage.

Under the terms of the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by the General Conference of UNESCO in 1972, the Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, called 'the World Heritage Committee' shall establish, under the title of 'World Heritage List', a list of properties forming part of the cultural and natural heritage which it considers as having outstanding universal value in terms of such criteria as it shall have established.

The purpose of this form is to enable States Parties to submit to the World Heritage Committee nominations of properties situated in their territory and suitable for inclusion in the World Heritage List.

This 'Nomination Document' has been prepared in accordance with the 'Format for the nomination of cultural and natural properties for inscription on the World Heritage list' issued by UNESCO.

The form has been completed in English and is sent in four copies to:-

The Secretariat
World Heritage Centre
UNESCO
7 Place de Fontenoy
75352 Paris 07 SP
France

UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANISATION

Foreword


by *The Rt Hon Tessa Jowell MP,
Secretary of State for Culture, Media and Sport*

At the heart of the World Heritage Convention lays the need to understand the environmental factors essential for the conservation, protection and sustainable development of the world's cultural and natural heritage. Scientific endeavour and discovery are key to furthering this understanding and vital to humanity for the survival of our planet's heritage. To acknowledge this, the World Heritage Committee has called for nominations for the World Heritage List that recognise and celebrate outstanding achievements of science.

I am therefore delighted that the United Kingdom is nominating Darwin at Downe, Charles Darwin's home and surrounding landscape, as a World Heritage Site. Darwin was one of the greatest scientists of the modern age and his contribution to our understanding of the natural world is unrivalled. After his historic round-the-world voyage on HMS *Beagle* in the 1830s, Darwin based his life of science on meticulous research in and around his home in the English countryside, and drew many of his most important ideas out of the living landscape that he walked and worked in every day.

Darwin's landscape survives today. It provides a unique opportunity to appreciate one of the supreme achievements of modern science. By following in the scientist's footsteps, we can experience the landscape which inspired Darwin's thinking which is fundamental to today's scientific understanding of the richness of natural life, essential biodiversity and ways we can protect it for future generations.

I would like to express my thanks to the many people and organisations that have come together and worked so effectively to develop this Nomination Document. On behalf of the Government of the United Kingdom and Northern Ireland, I am delighted to give my full support to this nomination for World Heritage status.



Rt Hon Tessa Jowell MP

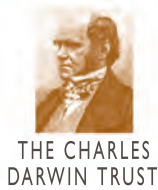
Darwin at Downe

World Heritage Steering Group

The following organisations are committed to the Darwin at Downe nomination for World Heritage Status:



MAYOR OF LONDON



Preface

We are delighted that 'Darwin at Downe' is being nominated as a World Heritage Site in recognition of its importance to the work of Charles Darwin. If inscribed, the area will join London's four other World Heritage Sites: Greenwich Park, Palace of Westminster, Westminster Abbey and St Margaret's Church, the Tower of London, and the Royal Botanic Gardens at Kew. The 10 square kilometres of farms, fields, and woodland around Down House in the London Borough of Bromley will be a wonderful addition to that list, demonstrating the importance of rural countryside and wildlife to London's diverse environment.

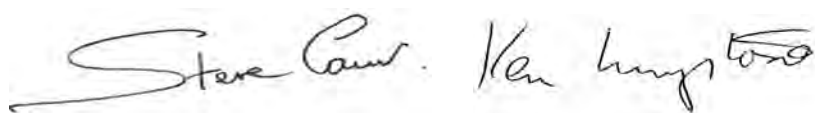
Links with other World Heritage Sites important to Darwin's work, such as the Galapagos Islands, Ecuador and the Royal Botanic Gardens at Kew have been forged and they provide a bond connecting Bromley and London with the rest of the world.

It has been fascinating to follow the direction the project has taken, from the initial idea almost a decade ago to producing the final documents. During these years we have been fortunate to have had the dedicated support from a number of individuals and organisations listed in the Nominated Document.

World Heritage Site status would not only give Down House and the surrounding area international recognition and increased conservation but will ensure that Charles Darwin's work is understood and appreciated by adults and children globally. His work continues to be the inspiration behind modern scientific discoveries and the modern day concepts from sustainable development to global warming.

We fully recognise that World Heritage status would bring many responsibilities which we address in the Management Plan. The public have been very supportive and provided us with a clearer image of the current and potential issues. Together we are dedicated to the long term sustainability of the site.

It is essential that we maintain and protect the natural environment for our future generations. It is remarkable that we can walk in the historic woods and country around the village of Downe, just as Darwin did over one hundred years ago.



Councillor Stephen Carr, *Leader of Bromley Council*
Ken Livingstone, *Mayor of London*

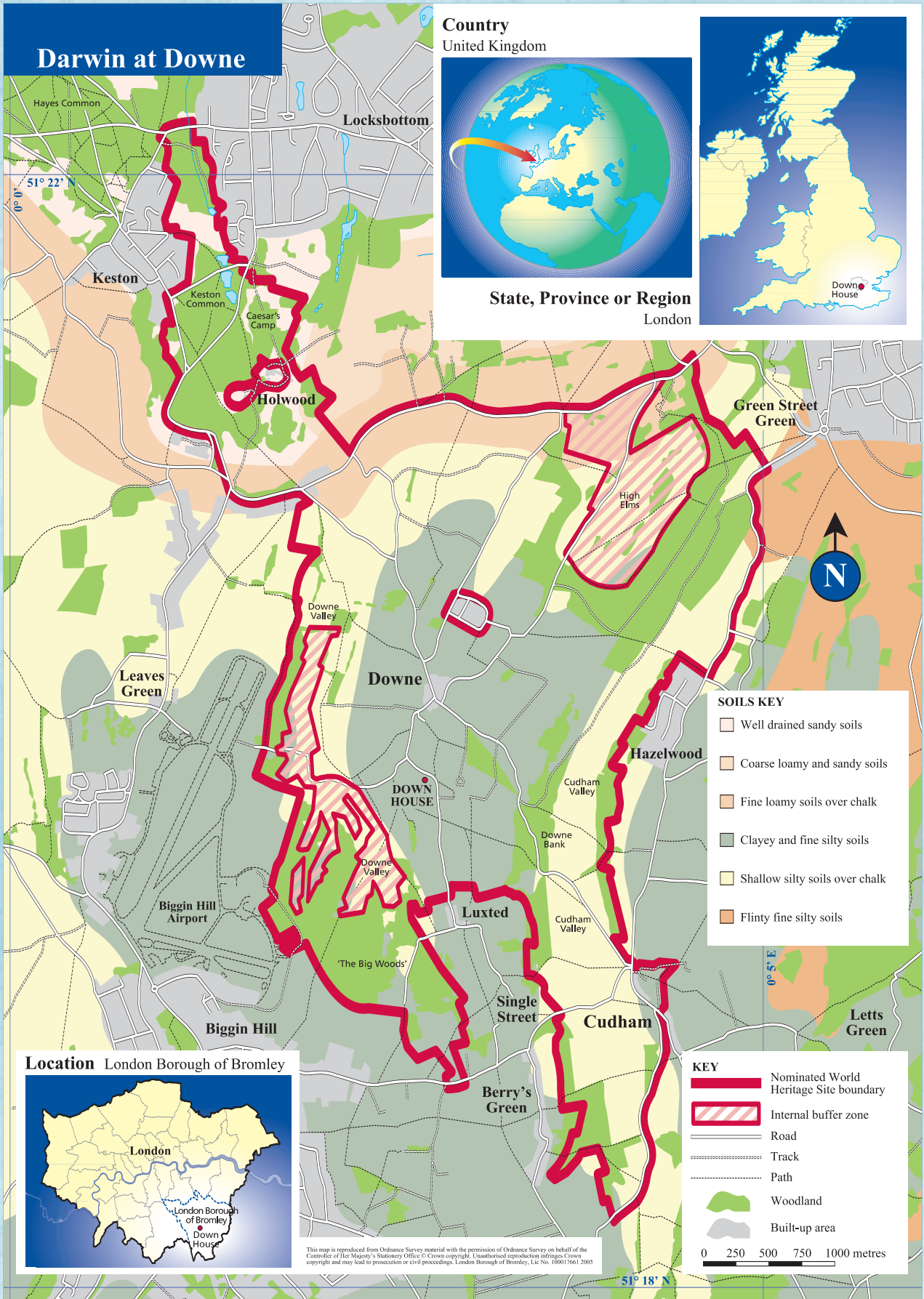


Stephen Carr



Ken Livingstone

Map showing the boundaries of the nominated Site and internal buffer zone



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. London Borough of Bromley, Lic No. 100017661 2005

Executive Summary

State Party: United Kingdom

State, Province or Region:

London Borough of Bromley, England

Name of Property/Site: Darwin at Downe

Geographical coordinates to the nearest second

Darwin at Downe is situated in the London Borough of Bromley in south east Greater London. The centre of the nominated World Heritage Site, Down House, is at:
Latitude: 51° 19' 50" N
Longitude: 0° 03' 4"

Textual Description of the boundaries of the Nominated Site

The boundaries of the proposed World Heritage Site has been set to include the area used by Charles Darwin for forty years to develop and demonstrate his theory of evolution. They conform to landscape features and roads. They exclude main areas of housing developed since Darwin's death in 1882, at Holwood, north of Downe, at Luxted and Single Street. Two golf courses are identified as internal buffer zones. The area of the Site is 996 hectares.

The World Heritage Site and its setting need to be managed appropriately and in conjunction with one another. For the proper conservation of the property an external buffer zone is not being proposed, as the immediate setting of the World Heritage Site and important views are strongly protected by planning designations, particularly London's Green Belt, while most of the Site is within and is defined by the surrounding ridge lines which form a natural visual barrier.

Map of the Nominated Site (see facing page)

Justification, Statement of Outstanding Universal Value

The nominated Site is of outstanding universal value because of its unique cultural significance as the open-air

laboratory in which Darwin developed his theory of evolution by natural selection, and because of the unique insights which it provides into the scientific understanding of natural life and biodiversity which he gained there and gave to the world. The ideas Darwin developed from his observations and experiments at Downe have had a profound influence on the life sciences, medicine, agriculture, philosophy, religion, the creative arts and general views of humankind's relation to other living creatures in the natural world.

Down House and its surroundings were of fundamental importance for Darwin's science as they were his home and workplace for the forty years of his scientific maturity and his most widely and deeply influential writings. The house, its grounds and the surrounding countryside were the settings for all the observations and experiments from which he drew his most important insights during those years. Together they encompass the full range of his scientific investigation at Downe, showing:

- how he identified *global* issues in the science of the time;
- how he explored the intricate realities of the phenomena in a range of *local* habitats surrounding his house;
- how he compared the living forms there with others from other regions of the natural world;
- how he tested and developed his ideas by further observations and experiments; and
- how he finally combined his findings from his scientific reading, his *local* observation, *global* comparison and his experiment to develop theories about evolutionary and other natural processes that apply *throughout the living world*.

Darwin's *study* was his library, indoor laboratory and writing place for his daily correspondence with other scientists around the world and work on the fifteen books and 130 scientific papers that he wrote during his years at Downe. The *garden and grounds* were his horticultural research station for observation and experiment on cultivated flowers and vegetables, agricultural crops and grassland, and wild plants collected

in the surrounding countryside or obtained from botanists and collectors throughout the world. His **greenhouse** provided living conditions for him to cultivate and experiment on plants from a range of warmer and tropical climates on other continents. In the surrounding **countryside** he was able to explore a range of semi-natural and natural habitats - woodland, pasture, hedgerow, pond, stream, bog and heath, to observe individual species in their natural state and carry out close examinations of the ecological interactions of plants, insects, other invertebrates, birds and mammals. Combining laboratory examination, field observation and experimental work in these ways, looking at the wildlife of his neighbourhood and comparing it with cultivated plants and other botanical specimens from around the world, Darwin developed his outstandingly powerful approach to the investigation and explanation of natural life. He produced bodies of analysis and theory which were taken up by scientists around the globe, transformed the scientific understanding of the natural processes and human origins, had a deep and pervasive influence on wider thinking about the living world and human nature, and laid foundations for many of the most important enquiries in the life sciences today.

The opportunities to see the natural phenomena that Darwin studied in the places where he studied them, to see the comparisons he made with organisms from other regions of the world, to repeat his experiments and then to follow his steps towards the central insights that he gained from his studies, provide a uniquely effective way for present and future generations to appreciate his scientific legacy and its continuing inspiration for all the invaluable work in pure science, medicine, agricultural and environmental science which has stemmed from it in the 150 years since *The Origin of Species* was published. The protection, presentation and explanation of the living organisms and natural processes that Darwin studied around Downe will be central features of the nominated Site.

Human nature and social values: Darwin's theory of evolution was by no means limited to natural life. It has fundamental importance for the modern understanding of the animal roots of human nature and our place in the natural world. Throughout his life he had a passionate commitment to the abolition of slavery based on his fundamental belief in the unity of the human races. His evolutionary understanding of human origins set out in *The Descent of Man* and *The Expression of the Emotions in Man and Animals*, both written at Downe, explained our shared ancestry with animals and made a strong case for the common nature of all human groups. *The Descent of Man* offered a naturalistic explanation of the origins of family and wider group bonds and the human moral sense, which has been widely influential in studies of the bases of cooperation in animal and human societies. In *The Expression of the Emotions in Man and Animals* and his 'Biographical Sketch of an Infant'

Darwin pioneered the analysis of human experiences and their communication through the exploration of links with the behaviour of domestic and other animals observed at Downe and in other places. The works are foundation texts for human ethology and developmental psychology with their behavioural and empirical approach.

International science and public understanding

Darwin was not a remote and solitary genius, but owed a great part of his success to his recognition of the importance of ensuring that his theories applied around the globe and his enthusiastic collaboration with fellow naturalists in every part of the world. Using the developing postal service of the time, he corresponded from Down House with naturalists and collectors on every continent. His whole achievement in science was based on that wide sharing of information and ideas, and the works he produced are one of the greatest and most lasting testimonies to the value of international scientific cooperation. Darwin was an innovator in explaining advanced science to a general audience and, as a result, gained a global readership for his writings. His books have been translated into 29 languages, more than for any other scientist since Euclid.

Criteria under which the Site is nominated

Inscription is proposed under the World Heritage Committee's Criteria (iii) and (vi)

Criterion (iii) requires that that the nominated Site should bear a **unique or at least exceptional testimony to a cultural tradition or a civilisation which is living or which has disappeared** (paragraph 77 (iii)).

The **living cultural tradition** is the approach of modern science to the understanding of the natural world by observation, hypothesis, experiment, free and wide exchange of information and ideas, theory-building and communication. Darwin's contribution is of special importance to humanity for the insights he has given us into the roots of human nature, the links between all living things and the compelling need to understand them fully if we are to master the threats that human impacts on the environment now pose to the survival of endangered species and habitats throughout the world.

The **unique testimony** is of two kinds. (1) Darwin's home and grounds contain many features which he created and used in his scientific work there. Among the features that were created by him and can be seen today are the study where he examined specimens, conducted his global exchanges with fellow naturalists around the world and wrote *The Origin of Species*. (2) The surrounding area preserves the main features of the farmed and wooded landscape which attracted Darwin to spend forty years of his life at Downe, and which he

used for his natural history in many ways. It contains all the natural and semi-natural habitats he studied and many particular places where he is known to have carried out important observations and experiments on plants and insects, and where the plants and insects are still present and can be seen growing today.

Criterion (vi) requires that the Site should be *directly or tangibly associated with events or living traditions, with ideas or with beliefs, with artistic and literary works of outstanding universal significance*. (Paragraph 77 (vi)).

The ideas of outstanding universal significance with which the nominated Site is directly and tangibly associated are Darwin's theory of evolution by natural selection, his explanation of global biodiversity as a fundamental principle of the natural world, and his demonstration of the ecological interdependence of all life forms. The three insights are closely intertwined and together provide the central principles for the present scientific understanding of the history of life on earth, the web of interrelations between organisms in ecosystems of all ranges, the influence of human pressures on the natural world and global needs for survival.

The event of outstanding universal value with which the nominated Site is directly linked was Darwin's writing and publication of *The Origin of Species* (1859), widely recognised as one of the most influential books of all time, which transformed scientific and wider public thinking about natural life and humans' place in the natural world. The change in thinking that the book brought about was a historic stage in the development of the modern understanding of life on earth and human nature.

The nominated Site is *directly and tangibly associated* with the ideas and the event in two ways. (1) Darwin's home and grounds contain many features, which he created and used in his scientific research for *The Origin of Species*. The property itself was essential for his achievements as it was his main workplace and open-air laboratory during the seventeen years he worked on the theory between the first sketch he pencilled in 1842 and the final publication in 1859. Among the features created by him that can be seen today are the study; the flower garden, lawn, orchard, sheltering banks and kitchen garden that he laid out, planted and managed for a number of key observations and experiments on the struggle for existence, natural selection and other evolutionary processes which provided important evidence for the 'one long argument' set out in *The Origin of Species*; and the world-famous 'Sand-walk' which he used as his 'thinking path' for his daily walks while he was developing his ideas. (2) The surrounding area preserves the historic landscape which was essential for Darwin's achievement as it included the natural and

cultivated habitats in which he carried out many of his important observations and experiments on plant and animal life, and many of the habitats, individual organisms and other features from which he drew inspiration and key ideas are still there and can be seen today.

Natural criteria: Although Down House has been nominated for inscription under Cultural Criteria (iii) and (vi), its significance stems from Darwin's associations with the values that underpin the World Heritage Convention's treatment of the world's natural heritage, especially those represented by Natural Criteria (ix) on ecological processes and on biodiversity. The natural life of the nominated Site does not match the IUCN's World Heritage stringent criteria for outstanding natural examples of ecological processes (ix) or biological diversity. It has unique value for humanity's understanding of those processes because it shows how they were first clearly identified and understood by Darwin through careful observations in semi-natural habitats close to human settlement; how they work, globally, in all such habitats and all others; and how they can now be understood by anyone anywhere who looks at the wildlife around him or her with the appreciation Darwin gave us of the interactions between all living organisms and the endless flux they give rise to. The nominated Site stands for scientific understanding of the natural world, and the essential link between local views and the global perspective which Darwin developed with supreme effectiveness in his research at Downe and the outstanding series of works he produced there.

Associative cultural landscape: The countryside around Darwin's property which was so important to him in his scientific work is put forward as a **Category (iii) associative cultural landscape** on the basis of the 'powerful cultural associations of the natural element'. The natural element is the features of the landscape, habitats and wildlife that Darwin studied during his forty years at Downe and can still be seen in the nominated Site today. The cultural associations are the seminal Darwinian insights into the ruthless patterns of the long history of natural life, and his overarching sense of the endless profusion and beauty of living forms, the two ideas which he developed together in his work at Downe and gave to the world in his most widely influential writings.

Name and Contact Information of local institution/agency

Organisation: London Borough of Bromley

Address: World Heritage Team, London Borough of Bromley, Stockwell Close, Bromley, Kent BR1 3UH, United Kingdom

Tel: +44 (0)208 461 7808

Fax: +44 (0)20 8313 0095

E-mail: conservation@bromley.gov.uk

Web address: www.darwinatdowne.co.uk

Contents

Section 1 - Identification of the Site

1a	Country	17
1b	Region	17
1c	Name of Site	17
1d	Geographical coordinates to the nearest second	17
1e	Maps and plans, showing the boundaries of the nominated Site	17
1f	Area of nominated Site	17

Section 2 - Description

2a	Description of Site	21
2b	History and development	66

Section 3 - Justification for Inscription

3a.	Criteria under which subscription is proposed and justification	73
3.b	Proposed statement of Outstanding Universal Value	76
3.c	Comparative analysis	78
3.d	Authenticity and integrity	84

Section 4 - State of Conservation and factors affecting the Site

4.a	Present state of conservation	91
4.b	Factors affecting the Site	94
	(i) <i>Development pressures</i>	94
	(ii) <i>Environmental pressures</i>	96
	(iii) <i>Natural disasters</i>	98
	(iv) <i>Visitor/tourism pressures</i>	98
	(v) <i>Number of inhabitants</i>	101

Section 5 - Protection and Management of the Site

5.a	Ownership	105
5.b	Protective designations	106
5.c	Means of implementing protective measures	112
5.d	Existing plans related to municipality and region in which the proposed Site is located	115
5.e	Site Management Plan or other management system	117
5.f	Sources and levels of finance	118
5.g	Sources of expertise and training in conservation and management techniques	119
5.h	Visitor facilities and statistics	120
5.i	Policies and programmes related to the presentation and promotion of the Site	122

5.j	Staffing levels (professional, technical, maintenance)	123
-----	--	-----

Section 6 - Monitoring

6.a	Key indicators for measuring state of conservation	127
6.b	Administrative arrangements for monitoring Site	128
6.c	Results of previous reporting exercises	128

Section 7 - Documentation

7.a	Photographs, slides, image inventory and authorisation table and other audiovisual materials	131
7.b	Texts relating to protective designation, copies of property management plans or documented management systems and extracts of other plans relevant to the Site	139
7.c	Form and date of most recent records or inventory of the Site	140
7.d	Address where inventory, records and archives are held	141
7.e	Bibliography	142

Section 8 - Contact Information

8.a	Preparer	153
8.b	Official local institution/agency	153
8.c	Other local institutions	153
8.d	Official web address	153

Section 9 - Signature on behalf of the State Party

Annexes

Annex 1	Darwin's paper on the 'General aspect' of Downe, 1843-1844	159
Annex 2	Features of Darwin's work linked with natural life around Downe that can be seen today	161
Annex 3	Timelines for Darwin's place in history, his life and developments since	162
Annex 4	Points in <i>The Origin of Species</i> and other works by Darwin and Lubbock based on or linked with observations at Downe	166
Annex 5	Species of conservation concern	168
Annex 6	Unitary Development Plan policies	182

Acknowledgements

189