



Celebrations will mark the bicentenary of Darwin's birth and the 150th anniversary of *On the Origin of Species*

Britain's Galápagos offers insight into evolutionary ideas

Mark Henderson Science Editor

The living laboratory where Charles Darwin developed much of his evolutionary thinking, described by scientists as "Britain's Galápagos", is to reopen to the public next month to mark the bicentenary of the great biologist's birth.

A £900,000 revamp of Down House, the Darwin family home near Orpington, Kent, will give visitors fresh insights into the story of evolution, with a new exhibition and the opportunity to be guided around its grounds by leading intellectuals.

Sir David Attenborough, Lord Bragg and the evolutionary biologist Steve Jones, are among the narrators of a multimedia tour of the gardens and fields around Down House, which will set out on handheld monitors their role as a natural laboratory for Darwin's science. Professor Jones, of University College London, described the site as "Britain's Galápagos", because the observations that Darwin made there were as important to his intellectual development as those that he made during the voyage of *HMS Beagle* to South America.

Down House and its surrounding countryside have also been nominated by the Government as a World Heritage Site, to mark the bicentenary of Darwin's birth and the 150th anniversary of his seminal work, *On the Origin of Species*, which both fall this year.

The theory of evolution by natural selection, which Darwin set out in *On the Origin of Species*, is the foundation of all modern biology. It holds that organisms evolve by means of random mutations, which are then preserved if they are beneficial and help survival and breeding. When the house and its grounds reopen on February 13, the day after the 200th anniversary of Darwin's birth, parts of the original manuscript will be displayed for the first time, with pages from his *Beagle* notebooks. A mock-up of the cabin that he occupied on board the ship is also being installed.

The multimedia garden tour aims to highlight the countryside setting's critical role in Darwin's thinking. "Several years of work have gone into recreating the garden as it was in Darwin's time, and now we can show it off with handheld video guides," said Jenny Cousins, of English Heritage,



Living laboratory: Down House, Kent

which owns Down House. "It's important because he really did use it as a living laboratory. We can show off the seasonality of the gardens — a particular plant might not be flowering when you visit as it's out of season, and we can offer a guided tour with experts such as David Attenborough, Melvyn Bragg and Steve Jones."

Darwin moved with his family to Down House in 1842, partly to escape Central London, but also because its surroundings offered great opportunities for him to study the natural world and refine his theories about its development. His experiments in the surrounding countryside included one of the first detailed ecological surveys, in which he catalogued all 142 species he found in the nearby Great Puckland meadow. He used the gardens to investigate plant breeding, and he did much of his thinking while strolling around a path called the Sandwalk.

Bob Bloomfield, of the Natural History Museum, who is co-ordinating a programme of bicentennial celebrations called *Darwin 200*, said: "Darwin's ideas were certainly among the greatest ideas of the 19th century, and some people would argue even greater than that. Down House is the environment where they were developed and reinforced: it wasn't just a home, it was a laboratory and workplace."

Online

1929 From Down House, Charles Darwin shook the world

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Darwinian thinking clarifies and deepens religious faith

Michael Reiss
Commentary

This year will bring an avalanche of books, lectures, television programmes and articles on Charles Darwin. It is 200 years since he was born and 150 years since he was pushed to publish his *On the Origin of Species* earlier than he intended by the arrival of a letter from Alfred Russel Wallace, the naturalist who, independently, had the same theory of natural selection that Darwin had supposed all his own. Since Darwin wasn't alone in

thinking up the theory of natural selection or in assembling evidence in support of evolution, are we right to make such a song and dance of his anniversary?

The short answer is "yes". *On the Origin of Species* is the most important biology book yet written and Darwin has done as much as anyone, including Copernicus, Newton, Marx and Freud, to change how we see ourselves.

So why do I, with a fairly conventional Christian faith, albeit someone with an academic background in evolutionary biology, believe that a Darwinian worldview matters more than ever?

Above all, Darwin decentres humanity. In this he completes the

work that Copernicus and Galileo began. We are not the centre of the Universe. The Universe existed long before we came on the scene.

This decentring does not, of course, mean that we matter any the less. Rather, it helps us to appreciate that we do not sit in a distinct category from the rest of creation. As a shorthand, other sentient creatures can be considered rather as young children in terms of their capacity to think, to feel and to experience pain and pleasure. The great apes that are heading towards extinction in the wild and are still used in some countries for medical research really are our relatives.

Darwin was more than a little

apprehensive about how his work would be received, realising that it would be controversial. In the event, the reception was generally positive. Even the Church of England accepted its message partly, perhaps, because it had little wish to box itself into a corner as the Roman Catholic Church had over Galileo two centuries earlier.

However, there are many who find a Darwinian view of life incompatible with their understanding of God's action in the world. Creationists prefer a literal reading of the early chapters of the Bible or the Koran. In my opinion the Darwinian worldview is not just compatible with religious faith but deepens

it and makes aspects of it more intelligible.

Consider the old but vital question as to why God allows suffering. A way of answering seems clearer if one sees God as giving creation the ability to evolve itself, including the capacity to feel pain and pleasure. Perhaps natural selection, as Richard Dawkins has argued, is inevitably written into the fabric of the world. Perhaps, too, those with a Christian faith do well to remember that the Word of God is a person more than parts of a book. Michael Reiss is Professor of Science Education and Assistant Director at the Institute of Education, University of London, and a priest in the Church of England