

*Alien Invaders: A Guide to Non-Native Species of the British Isles.* By Jacob Cartwright and Nick Jordan.

# The Aliens Amongst Us

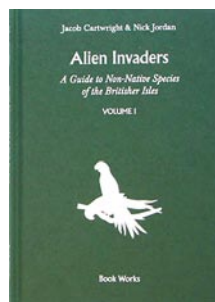
A pair of British artists has written a fine 40-page book on invasive species. It trumps the dull heavyweights of life science literature.

You can blame George Lucas for the mess. After the Hollywood producer brought out his film *Star Wars* in the summer of 1977, thousands of British children spent sunny hours fencing each other with “light sabres”. Unfortunately, these play fights were more similar to the light sabre battles in *Star Wars* than the children expected. Within a few days hospital accident and emergency units were overcrowded with screaming children suffering from grave “Darth Vader” burns. Nursing staff treated acres of swollen, painful blistered skin. What had happened?

A kind of “alien invasion” was responsible. For their impromptu weapons the uninformed children had used the huge reddish purple stems (3-8 centimetres in diameter) of *Heracleum mantegazzianum*, also known as “Giant Hogweed”. This member of the Apiaceae family is characterized not only by its size (it can reach 2-5 metres tall) but also by its phototoxic sap, which causes photodermatitis (meaning that the skin becomes inflamed and itchy when exposed to sunlight). Subsequently, disfiguring scars form, which can remain for years. Even more alarmingly, sap in the eyes can cause blindness.

The Giant Hogweed is not a British

plant, not even European. It is native to the Caucasus and Central Asia. The Azeri botanist, Vakif Jalilabad, introduced it to England when he donated 5,000 seeds of this



A marvellous pocket-sized book that will make you smile. *Alien Invaders* describes various European plagues of the 21st century.

(in his words) “awesome but well-mannered curiosity” to Queen Victoria in 1851. Today, if anything, you would call his “gift” an act of terrorism. Integrated as grown plants into the ethnically themed gardens of Buckingham Palace, the Giant Hogweed soon escaped. It became widespread throughout the British Isles, causing the greenest plague of the 20th and 21st centuries. Today, Germany, France and Belgium are also overrun by *Heracleum*. Even though planting or causing Giant Hogweed to grow has been a punishable offence in the UK since 1982, nobody has been able to halt its propagation so far.



Although the Giant Hogweed is possibly the UK’s best-known alien invader it is not the only one. The UK-based artist duo Jacob Cartwright and Nick Jordan (known collectively by the moniker *würstundgritz*) has written an extraordinarily brief hardcover book called *Alien Invaders: A Guide to Non-Native Species of the British Isles*, which includes plenty of quirky anecdotes about invasive non-native species of plant and animal life. Besides *Heracleum* the authors describe nine other migrant wildlife species that now live in and terrorise the UK. Each species is categorised (by *würst* Jordan) and illustrated (by *gritz* Cartwright), including “the erosion and flood risk increasing” Chinese Mitten Crab (*Eriocheir sinensis*), “the eighteen feet long, swan eating” Wels Catfish (*Silurus glanis*) or “the shoe polish eating and infection spreading hazard” Pharaoh Ant (*Monomorium pharaonis*).

## Quirky anecdotes about invasive species

The alien invaders and their effects on native wildlife are each presented over four witty pages (under the headings ‘Origins of Introduction’, ‘Problems caused by Introduction’, and ‘Efforts of Control or Eradication’) based upon serious scientific facts as well as hearsay. This makes 48 pages of entertaining reading, including ten beautiful colour charts. The latter demonstrate a certain black humour: the explosively prolific Ruddy Duck (*Oxyura jamaicensis*) is mapped on page 37 with two gun cartridges, and the cute Grey Squirrel (*Sciurus carolinensi*) on page 21 faces the carcass of an unfortunate fellow, hanging dead as a dodo from a tree. To cut a long story short, *Alien Invaders* is a marvellous pocket-sized book packed with instructive words that will make you smile. What more could you want?

WEANÉE KIMBLEWOOD

*Alien Invaders: A Guide to Non-Native Species of the British Isles (Volume 1)*. By Jacob Cartwright and Nick Jordan. Book Works, 2006. 48 pages, £6.50 (€9.80)

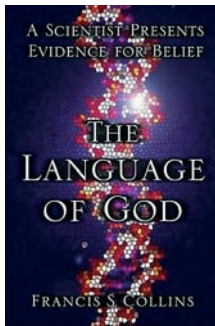


An unknown victim encircled by the aggressive Giant Hogweed (*Heracleum mantegazzianum*) at a secret location.

Books written by prominent life scientists

# About God, Genes, and Cancer

Three accounted life science experts become writers: Human Genome Project supervisor Francis Collins dabbles in philosophy, zoologist Ryan Gregory issues a huge tome on genomic study – and the prior DKFZ director Harald zur Hausen provides a comprehensive overview on cancer-inducing infective agents.



Sometimes a superstar in one field gets into his head to succeed in a completely different field. The result can be a disaster. Take rock band singer Sting, who dabbles with John Dowland's renaissance music, or his

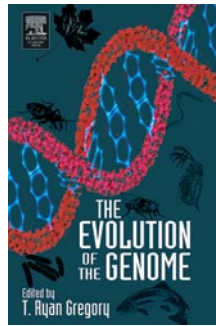
colleague Jon Bon Jovi, who acted in third-class horror films. Francis Collins, former head of the Human Genome Project, recently also discovered a novel field to work on. In *The Language of God*, the notable scientist philosophises on religion. The book caused a sensation in the USA and climbed to the top of the ranking lists whilst in Europe few noticed its existence. Did we miss anything?

Definitely not. Collins – the man who was praised as “genome cracker” (*Sunday Times*) and “superstar” (*Tagesspiegel*), takes a chance – and fails miserably. Pleading for a peaceful coexistence of belief in God on the one hand with practising modern science on the other, Collins speaks about a “third way”, in which “science is not threatened by God” but “enhanced”. He daydreams of combining science and (Christian) religion in harmony. That's a sensitive issue, demanding a sharp-sighted analyst who is also able to write in a lively and clear manner.

Collins cannot meet these demands at all. Shy to provoke disputes, he argues in a tedious, politically correct tone, that makes the reader either bored or angry, and what he writes is dubious. Sam Harris, a US expert on religious subjects, wrote in a review: *If one wonders how beguiled, self-deceived and carefree in the service of fallacy a scientist can be in the United States in the 21st century, [Collins' book] provides the answer. This is an American book, attesting to American ignorance, written for Americans who believe that ignorance is stronger than death. – There is nothing to add to these words.*

WEANÉE KIMBLEWOOD

*The Language of God: A Scientist Presents Evidence for Belief.* By Francis S. Collins. Free Press, 2006. 304 pages, €26.-.



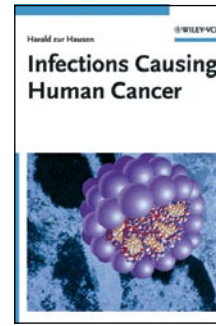
The public funded Human Genome Project (HGP) took 13 years and resulted in a solemn handshake with US president Bill Clinton. HGP director Francis Collins and his worldwide co-workers had spent

\$3.8 billion between 1990 and 2003 to unravel three billion nucleotides. But was it worth it? Ryan Gregory provides as an editor of *The Evolution of the Genome* dozens of arguments to affirm this question. The Canadian evolutionary biologist, winner of the prestigious Howard Alper Postdoctoral Prize in 2003, recently returned home after research intermezzos at the American Museum of Natural History (New York) and the Natural History Museum (London). Now Gregory acts as an Assistant Professor at the Biodiversity Institute of Ontario, University of Guelph.

In this arty hardcover with its glossy paper, Gregory provides an impressive overview of the key areas in genome biology, such as the evolution of genome size in animals and plants, polyploidy, the evolution of genomic parasites, and comparative genomics in eukaryotes and prokaryotes as well. Despite its highly academic value (and countless references), the reading “flows” in a very enjoyable way. Gregory and his sixteen co-authors ask endless questions on large-scale evolutionary phenomena – and they answer them all: How common is polyploidy in plants, and how is it linked with animals, i.e. with attacking herbivores? What are “B Chromosomes”, how widely are they distributed and where are they derived from? How did genomes originate? What is a prokaryotic species? And so forth. In a word: Wherever one opens this well written book, he will read it with great pleasure.

WEANÉE KIMBLEWOOD

*The Evolution of the Genome.* By T. Ryan Gregory. Elsevier Academic Press, 2005. 740 pages, €65.50.



Are you close to desperation while working boring long years on a never-ending research project? Bear up! In the 1980s the young German researcher Harald zur Hausen faced similar problems. The fact that prostitutes

have higher rates of cervical cancer than nuns didn't leave him alone. Zur Hausen got it into his head to unveil a causal link between HPV (human papillomavirus) infection and cervical cancer. In the beginning, he was pretty alone with this attempt. He persisted and worked on oncogenic pathogens and the role of viruses in human tumors. Now, nearly 30 years later, zur Hausen has proved his hypotheses and published a total of 280 papers. Recently, a vaccine which protects women from developing cervical cancers has been approved for sale. It is the first vaccine to protect people from cancer at all, and it is based upon zur Hausen's long lasting research. Discouraged scientists should keep this little story in mind.

Besides his successful career as a research scientist, Harald zur Hausen was Scientific Director of the German Cancer Research Center (DKFZ) in Heidelberg (Germany). Now, after his retirement, he has published a comprehensive book on his field. Zur Hausen compressed his complete expertise into *Infections Causing Human Cancer* – and this is quite a number. Approximately 20% of the global cancer incidence is initiated or promoted by infectious agents like certain viruses and parasites like *Schistosoma*, *Helicobacter* and liver flukes. Each of these vermin has its own chapter. The book contains tons of information for skilled experts, it has an extensive bibliography, but it doesn't mention every bagatelle in detail. You should consider purchasing it.

WEANÉE KIMBLEWOOD

*Infections Causing Human Cancer.* By Harald zur Hausen. Wiley-VCH, 2006. 517 pages, €149.-.