

Reviews



The emperor dragonfly is the largest species in Britain

Dragonflight "Alongside the dragonfly narrative are recommendations of places to look for other species"



Here be dragons

Dragonflight: In Search of Britain's Dragonflies and Damselflies

Marianne Taylor

Bloomsbury, £16.99

What came first – our invention of the dragon or our discovery of the dragonfly? This is the story of a

woman's adventures and travels in her quest to see all native British dragonflies in a year. The narrative moves around the UK in the chase for rare sightings in known habitats of different dragonflies.

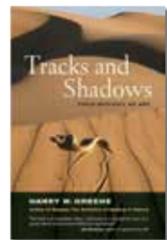
Explaining the start of her fascination with dragonflies, Taylor describes retrieving a dragonfly seemingly broken and dead from a cat's well timed leap,

then seeing it 'repair itself', rest for a moment and fly away.

An overview chapter lists the dragonflies found in the UK, with other chapters providing additional information about some of these species. Anecdotes from visits to nature reserves, woods and marshes in the search for elusive dragonflies and damselflies are entertaining and set against the background of everyday life and changes in personal circumstances.

Alongside the dragonfly narrative are sightings and recommendations of places to look for other species and how to find these. Kestrels, hobbies, kites and rare migrant species all get a mention. Recommendations are given for photographic equipment, how to take good quality photographs and internet forums on recent wildlife sightings.

Dr Amanda Hardy AMSB



Tracks and Shadows: Field Biology as Art

Harry W Greene

University of California Press, £19.95

Harry W Greene

is a professor of ecology and evolutionary biology at Cornell University and a career herpetologist whose previous book, *Snakes: The Evolution of Mystery in Nature*, won the PEN Literary Award. In this new book, he covers snakes once more, but also other reptiles, natural history, fieldwork, the wonders of nature, his autobiography and his mentor's biography.

It's packed full of details from the world of field naturalists from the mid-1940s to the current day. For today's readers, the numbers of animals killed in the search for data may be concerning, but this is an honest account of a way of working that was then not just accepted, but expected for a naturalist.

The sub-heading, *Field Biology as Art*, is apt. Reflections on the beauty of natural history permeate the chapters, as does the importance of humanity having a love of nature and an understanding of issues such as conservation. Another theme is that the best natural historians are those who are attentive. Being a careful observer increases the likelihood of caring, and communicating that caring might mean less destruction of vital habitats such as the rainforests and deserts. Alongside such thoughts, there are detailed descriptions of research and teaching, as well as plenty of information about reptile biology.

The book's target audience is probably academics, scientists and natural historians. At times the flowery and colloquial language is slightly offputting. At other times, it is refreshing to read a scientific narrative that verges on the poetic. Readers will have to make up their own minds.

Sue Howarth FSB



Schizophrenia: A Brother Finds Answers in Biological Science

Ronald Chase

The John Hopkins University Press, £13.00

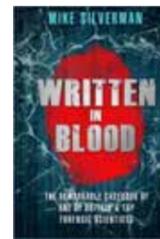
Before reading *Schizophrenia: A Brother Finds Answers in Biological Science*, I knew very little about this intriguing disease, and my view of schizophrenia was largely shaped by the accounts of friends and stories in the media. Fortunately, it provides a well rounded overview of schizophrenia, delicately balancing science and personal experiences.

Chase takes the reader on a journey that alternates between the milestones of his brother's life, living with schizophrenia and looking at the questions this naturally raises, such as 'who gets schizophrenia and why?' and 'why is schizophrenia stigmatised?'

The author has managed to successfully amalgamate work from various sources, presenting a series of clear reviews on issues such as the causes and treatments of schizophrenia. Also, conveniently, Chase includes a summary page at the end of each chapter, enabling you to refer back to areas of particular interest.

On the whole, while schizophrenia may be well known, it is widely misunderstood. Chase has successfully produced a succinct scientific overview of schizophrenia that also gives a touching insight into the lives of those affected by this complex disease. I would recommend it to anyone wishing to gain a deeper understanding of the illness.

Natasha Ganecki



Written in Blood

Mike Silverman

and Tony Thompson

Bantam Press, £18.99

Despite the occasionally rather graphic description of the subject matter, I thoroughly enjoyed this book. While shining a spotlight on the disturbing things that humans are capable of doing to each other, the descriptions of the scientific evidence needed to stop them make fascinating reading.

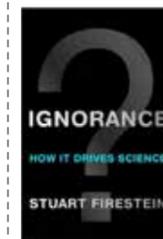
The story starts in the 1970s, a time when techniques such as DNA fingerprinting did not exist. I particularly liked the progression of the story with Silverman's career and all the changes that he saw over the years. The feeling of slight helplessness as he ends up doing ever more admin and less and less science as he moves up the career ladder will also be familiar to many.

Many of the cases described will be familiar to some readers – for example, the murder of Damilola Taylor. If you were shaken by the case at the time, prepare to be shocked again as Silverman reveals what went on behind the scenes and demonstrates that scientists, even forensic scientists, are only human.

As the book progresses, you are treated to a detailed insider's view of the politics and interactions between the Forensic Science Service (FSS) and commercial forensic science providers, which led to the end of the Home Office controlled FSS in the UK, the full ramifications of which are yet to become apparent (see Opinion, page 9).

If you like science, forensics, modern history and politics, or just a good read, you will enjoy this book.

Dr Oliver Jones CBIol MSB



Ignorance: How it Drives Science

Stuart Firestein

Oxford University Press, £14.99

This is a lovely little book, which is truly about what

drives science; and it's not about physics, or chemistry, or engineering, but real biology. Mostly neurobiology, but that's okay.

"We have too many answers, not enough questions," author Stuart Firestein writes early on. In my formulation we have too much 'information' from the internet, not enough 'knowledge'.

Firestein wants everyone to understand what is going on. We don't all have to understand the physics of the Big Bang, but he does want us to follow him through several investigations of "the thing you think you think with", starting with the 'Clever Hans' problem – when a horse appeared to be able to do arithmetic, but was actually 'reading' the people presenting the problems.

He includes fascinating work with dolphins by Diana Reiss, and with Alex the parrot by Irene Pepperberg, where the animals were not simply puppets, but encouraged to show their 'minds'. I would have liked more details of Pepperberg's clever technique, but the description is adequate, and he does refer to the book *Alex and Me*.

The big problem, for me, is a formal one. In the title, 'Ignorance' isn't a something, it's an absence, like darkness, cold or a vacuum; the technical term is a privative. So there isn't an 'it' to drive anything. However, this is a great little book, despite that formal plait. Give it to your friends or relatives to explain why you do science.

Professor Jack Cohen FSB



Cultural Severance and the Environment

Ian D Rotherham

(Ed)

Springer, £117.00

In 2013-14

Springer published the first three

volumes in its Environmental History series. The objective was an exploration of the relationship between society and environment and its temporal changes. *Cultural Severance and the Environment* focuses on commons, lands and rights of usage in common, traditional and customary practices – that is, land management – and the outcome for people, landscape and biodiversity when such practices cease.

Organised into three parts, there are 31 chapters and 39 contributors. Part one defines the issues, notably the nature of the relationships between people and land in space and time, and how and why such relationships have been altered or discontinued.

The 10 chapters of part two present a wide range of case studies of cultural landscapes, including agro-silvo-pastoral systems in Italy, Himalayan grasslands and various European woodlands. Part three has a historical focus with examples drawn mainly from common lands in various parts of England, with the addition of a chapter on abandoned landscapes in the Czech Republic and Slovenia.

The fourth part focuses on the management and conservation of common lands and cultural

Written in Blood "If you were shaken by the Damilola case at the time, prepare to be shocked again as Silverman reveals what went on behind the scenes"

Going Going Gone

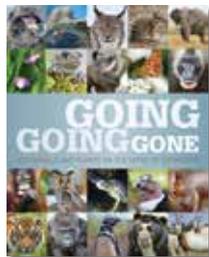
"Conservation organisations were invited to nominate one plant, animal or environment that most needed to be protected"

landscapes, with examples from upland and lowland UK and Europe, plus a chapter on woodlands adjacent to Tokyo.

The concluding chapter emphasises the significance of traditional landscapes and their vulnerability. It raises important issues, but admits that solutions are elusive.

The strength of this book is the highlighting of these issues; perhaps Springer might like to consider a further volume on similar issues in the Americas and Asia to complement this welcome but generally Eurocentric text.

Dr A M Mannion



Going Going Gone

Assorted contributors
Bloomsbury Publishing,
£20.00

The subtitle
– 100 Animals

and Plants on the Verge of Extinction – indicates that this is a guide to some of the most threatened species and habitats. Initially the most notable feature is the collection of 100 superb full page photographs. However, of great interest is the method of production of this book – 100 conservation organisations were invited to nominate one plant, animal or environment that most needed to be protected and explain how people can assist in their efforts. The organisations range from huge international groups, such as the WWF and the RSPB, to much smaller groups, such as the Lemur Conservation Foundation.

Some of the endangered species are well known, such as the common hippopotamus (150,000 individuals left), orangutan (60,000) and African elephant (550,000). Others are less obvious, such as the mangrove finch (nominated by the Charles Darwin Foundation), which are reduced to about 100 individuals and are at extreme risk of extinction.

For each species there are notes on their status (endangered, vulnerable, threatened), population, lifespan, range and threats. At the end of each page is information on what you can do – this directs the reader to further online information and also to membership of the relevant conservation organisation.

Going Going Gone is a lovely and deeply thought provoking book.

Alan Cadogan CBIolFSB



The Clinic and Elsewhere: Addiction, Adolescents, and the Afterlife of Therapy

Todd Meyers
University of

Washington Press, £15.99

Buprenorphine is a pharmaceutical used for opiate withdrawal and replacement therapy. In *The Clinic and Elsewhere*, anthropologist Todd Meyers takes you on a journey with a small group of Baltimore adolescents who have used this drug to deal with their own substance addictions.

Central to this compelling ethnographic monograph, as indicated by its subtitle, is what the author calls the 'afterlife' of therapy: what happens to teenagers following buprenorphine treatment?

Conceptually, Meyers draws throughout on the French philosopher of medicine and biology, Georges Canguilhem, particularly his distinction between curing and healing. In the former case, an individual's physiological normality is restored, whereas the latter implies a more profound remaking of the body, the self and the wider social context – to heal is to produce something new. Meyers' focus is the way that buprenorphine (sometimes) helps to heal.

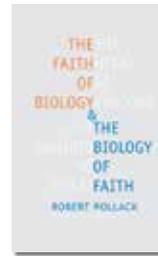
As an anthropological study, the concerns here are not standardised clinical outcome measures, although Meyers certainly does not dismiss these. Instead, they are the less tangible and more complex biographical details of former adolescent drug-takers' lives.

These are not straightforward, and Meyers wisely eschews any attempt to use his ethnography as a tool for making predictive claims. Rather, he seeks to reveal, with great sensitivity, the great degree to which buprenorphine is only one part of a wider ecology of persons, places and substances that shape the lives of adolescents. At the same time, he reflects anthropologically on a powerful and often neglected issue in the social science of biomedicine: what happens when participants die?

The Clinic and Elsewhere is, of course, written for fellow anthropologists rather than biologists, but there is much to recommend here for scientists concerned with what happens to the

substances they develop once they have left the walls of the laboratory, and how young lives are impacted and changed in the process.

Dr Martyn Pickersgill MSB



The Faith of Biology & The Biology of Faith

Robert Pollack
Columbia University Press, £15.00

Despite the common perception that our current scientific knowledge undermines any credible role for religion as a source of intellectual understanding (perhaps fuelled by books such as Richard Dawkins' *The God Delusion*), adherents to religious traditions are by no means absent from the ranks of leading contemporary biologists. A notable example is the distinguished biologist Robert Pollack, who in this short book provides some coherent and penetrating challenges to the perception identified above.

As Pollack points out, a major limitation of scientific reasoning derives from the fact that in its disciplined way of looking at the natural world, science requires its practitioners to act solely as observers, whereas they are also invariably participants. This means that in attempting to meet rigorous standards of dispassionate objectivity they overlook the "irrational boundaries of their minds and bodies".

Everyone, whatever their theistic, atheistic or agnostic persuasion, inevitably makes assumptions that can't be examined objectively. So, arguably, the atheist's belief that the human mind is, or will be, capable of meaningfully explaining life and the universe is no less an act of irrational faith than many (though certainly by no means all) religious beliefs.

Having established these major limitations to rational deliberation, Pollack proceeds to address questions such as free will and what counts as evidence in scientific and religious contexts, and also thorny ethical issues such as the identification of (potential) genetic disabilities that also affect one's relatives. This important book provides stimulating insights for believers and non-believers alike.

Professor Ben Mephram FSB