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RIGHTS 2026

“Those who contemplate the beauty
of the earth find reserves of strength that
will endure as long as life lasts.”

— Rachel Carson, *The Silent Spring*

From the banks of the River Thames, we have already launched compelling stories about our connection to the natural world. While we continue to observe nature’s ‘endless forms most beautiful,’ our latest list adds another dimension to our storytelling: tales of our place in history, myth and legend. History is shaped by our environment; myths and legends offer explanations of natural phenomena; tales of heroic achievements involve battling against the elements. So our stories about ancient trees, plants from the dinosaur age, patterns of life on earth and in the depths of the ocean are built on the foundation of tales ancient and modern of the eternal human quest to understand our place in the world.

With heartfelt thanks to our authors, artists and illustrators,
to the editorial and design team who help them tell their stories and to
our publishing partners who ensure they are heard.

Jenny Manstead
MANAGING DIRECTOR



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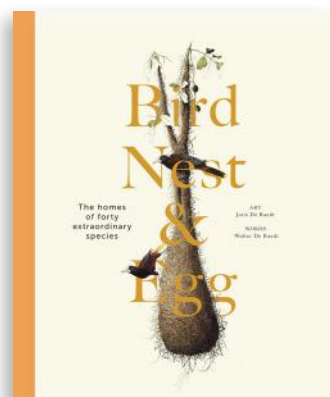
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Cover: Illustration by Joris De Raedt,
Bird, Nest & Egg

Above: Illustration by Joris De Raedt,
Bird, Nest & Egg



Bird, Nest & Egg

The homes of forty extraordinary species

Nowhere is the ingenuity of birds more beautifully expressed than in their construction of nests, homes for breeding behaviour and domestic lives that hold endless fascination for naturalists.

Bird, Nest & Egg is a large format visual portfolio of forty of the world's most distinctive nest-builders. The natural wonders of each bird are celebrated in the beautifully detailed graphite and watercolour art of Joris de Raedt, with exquisite bird, nest and egg portraits framed by details including building techniques, materials, egg numbers and colours, chicks and parenting behaviours, reflecting the artist's global portfolio of studies in the field. Curated into chapters by nesting technique, each species is profiled in a short essay describing their domestic lives. A visual celebration of the world's birds in their homes, *Bird, Nest & Egg* is a timely reminder of how the diversity, beauty and ingenuity of the avian world needs to be cherished and conserved.

Specifications

345 x 285mm / 11¼ x 13½ in
112pp four colour throughout
200 artworks
15,000 words

About the Author and Illustrator

Walter De Raedt is a former biology teacher, who has always tried to teach others the importance of nature. His fascination with birds began when his grandfather gifted him his first pair of binoculars, igniting a lifelong love for birdwatching and opening up a whole new world through his involvement in a local nature association. Walter passed on that admiration and interest to his son Joris, and the circle is complete.

Joris De Raedt is a scientific illustrator and graphic designer visualising the wonders of the natural world. Since he graduated with magna cum laude at the Antwerp Royal Academy of Fine Arts in 2012, he has worked full-time for magazines, books, museums and nature reserves. His main painting techniques are often a combination of traditional and digital media. For this publication he worked entirely in watercolours. In 2017, Joris published his first book on Raptors and Owls of Northwest Europe. His most recent books are a monograph of the little owl and a book on raptors in collaboration with his father, Walter De Raedt.



Bog Bilberry

Latin name: *Vaccinium myrtillus*
Other names: Bog blueberry, bog whortleberry
Family: Ericaceae
Genus: *Vaccinium*
Name: Europe, North America
Type: Deciduous shrub

The European bilberry or whortleberry (*Vaccinium myrtillus*) is native to northern Europe and closely related to the North American wild blueberry (*Vaccinium angustifolium*). Bilberries have been used as a dye since ancient times, being green, for example, in Roman Gaul to dye the garments of dance pupils. In the 16th century AD, Pehr the Elder noted in his *Naturalis Historia* that bilberry plants were recognized in Italy for their ability to dye capes.

Today there are around 450 species in the *Vaccinium* genus, with blueberries being the most well-known. Followed by cranberries (*Vaccinium oxycoccos*) and lingonberries (*Vaccinium vitis-idaea*). Wild blueberries (*Vaccinium angustifolium* Aiton), which thrive in swampy conditions, have been used for thousands of years by the Indigenous peoples of North America. The Alutians, for example, used blueberries as well as groundwood (*Sparganium angustifolium*) on a colored stain. The tribes also used them to make pemmican, a traditional food composed of dried strips of meat mixed with fat and various berries. The plants were highly regarded by these tribes, who recognized the berries as a valuable source of food and for their health properties. In the early 1600s, French diplomat and explorer Samuel de Champlain, often referred to as the 'Father of New France', noted the Indigenous peoples subsisting the East Coast of America. He documented that they made a pudding with dried blueberries by carefully grinding them into a fine powder and then combining them with fresh water, cornmeal, and the natural sweetness of wild honey.

The blueberry was widely cultivated and commercialized in 1916 by Henry Eckhardt White from New Jersey and the chief botanist of the USDA, Frederick Coville, but work on this had already begun a decade before. Today America's main cultivated domestic blueberry crops are the highbush (*Vaccinium corymbosum* L.) rabbiteye (*Vaccinium corymbosum* L.) and the lowbush (*Vaccinium angustifolium* Aiton), mountain blueberry (*Vaccinium corymbosum* L.) and the Huckleberry (*Vaccinium pallidum* Aiton). Other cultivated species are grown around the world, but blueberries primarily come from America.

Like most plants, the weather can have a huge influence on the production of the blueberry harvest, as harsh conditions and natural rainfall can affect the crop. The cultivated plants, according to Coville in his guidance on blueberry culture, are best grown in acidic soils consisting of a mixture of washed sand and rounded sphagnum peat, or peat and sand, with good drainage from broken earth beneath peat, and various keeping the soil moist.

Caption



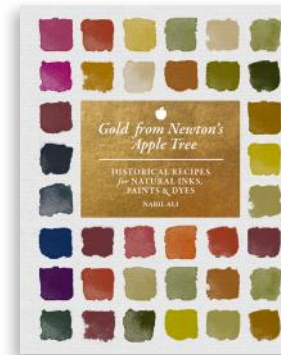
Recipes from Blueberries

There are occasional recipes in historical manuscripts relating to blueberries, with the name sometimes changing as it was copied or copied. For example, the Roman architect and engineer Vitruvius, writing in the 1st century BCE, included a chapter on 'Substantive Pigments' using plants in his influential book *De Architectura*. In the 16th century, the Venetian architect and engineer Andrea Palladio, writing in his book *De Architectura*, also included a chapter on 'Substantive Pigments' using plants in his influential book *De Architectura*. In the 16th century, the Venetian architect and engineer Andrea Palladio, writing in his book *De Architectura*, also included a chapter on 'Substantive Pigments' using plants in his influential book *De Architectura*.

A 17th-century manuscript in Middle English, MS. Rawlinson C. 586 (held by the Bodleian Library, Oxford), includes a recipe for making 'true vermilion' with a range of berries. Turned to dark red (or crimson), blueberries, but might also be a 'color used' for plants like bilberries, blackberries, mulberries, cowberries, and even blackberries that can be used to make a blue colorant (see Recipe 2). The cowberry (*Vaccinium vitis-idaea*) as well as the bog bilberry (*Vaccinium myrtillus*), or whortleberry, are native to Europe. Today, as blueberries, with cowberries being in bloom (a type of cranberry) – or abundant in Scandinavian climates (e.g. *Vaccinium vitis-idaea*) gathered in spring – to create a blue colorant. There are many methods for creating a berry blue dye paste using different ingredients to finalize the process and small colorant. But when you see the blue created by the berries of different species, it becomes evident which plant was used in the past. Drawing on historical recipes to identify plants in nature of a starting point for creatively exploring the natural world and experimenting with use of processing values.



Caption: Nabil Ali's still life for the natural history of blueberries. The fruit is a small, round, red berry with a green stem and leaves. The berries are shown in a cluster, with some showing the green stem and leaves. The berries are shown in a cluster, with some showing the green stem and leaves.



Specifications

264mm x 206mm (8 x 10 1/2 in)

224pp four colour throughout

100+ images

c. 45,000 words

Gold From Newton's Apple Tree

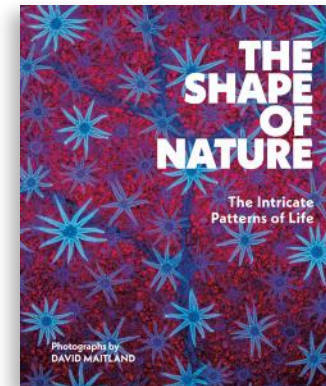
Historical Recipes for Natural Inks, Paints, & Dyes

The principles and practicalities of extracting from organic ingredients a dizzying array of colours – according to season, process and ingredients – date back to the earliest times. Recipes for making brilliant organic dyes have been translated through generations and recorded in exquisitely illuminated manuscripts.

Gold From Newton's Apple Tree joins this tradition by celebrating the art of organic alchemy. Taking its title from a dye recipe that turned ingredients descended from Sir Isaac Newton's apple tree magically from black to gold, it blends a natural history of each plant with the colours it produces and translations of the medieval recipes used to extract them. Arranged by colour, the book combines historic botanical illustrations with organic palettes. This is a recipe book like no other, celebrating the human interaction with plants through modern inks and dyes made using medieval formulae, translated and practised for the first time in millennia.

About the Author

Nabil Ali is a visual artist who conducts research working from translated manuscripts containing painters' and illuminators' recipes for plant-based dyes and paints. His work has led him to develop Botanic Dyes, a foundation for experimental, organic colour-dye research, utilising site-specific plants growing in Cambridge University Botanic Garden, linking historic dye, paint and ink recipes with the generation of a public index dye catalogue. Nabil is a visiting tutor at the University of Cambridge and is known throughout the Art Conservation industry for insights into organic dyes and paint. He has taught workshops at sites including the Cambridge University Botanic Gardens; Ferens Art Gallery; Fitzwilliam Museum; and Radcliffe Observatory Quarter, University of Oxford.



The Shape of Nature

The Intricate Patterns of Life

On the surface, it might appear that the randomness and chaos of the world is what makes its beauty. But all around us there are exquisite and extraordinary examples of natural patterns, shapes, structures, and symmetries that follow strict geometric rules and rigid regularity. From a wasp's nest to a spider's web, from a sand dune's ridges to the bilateral symmetry of a tiger's face, nature's palette is applied in regimented patterns underpinned by mathematical laws and principles.

The Shape of Nature explores and explains the myriad ways in which geometric forms appear in nature. It asks how and why nature came to engineer such structures, and conveys the concepts behind their multiple occurrences – such as Alan Turing's theory on mathematical morphogenesis addressing how leopards get their spots; and Benoit Mandelbrot's work on fractals underpinning the infinitely repeating pattern and six-fold symmetry of a snowflake.

Specifications

305 x 254 mm (10 x 12 in)

288pp

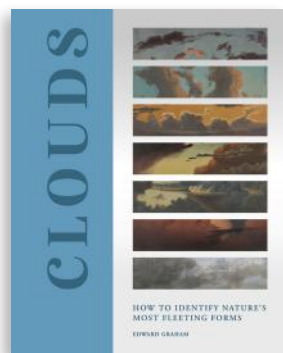
Four colour throughout

120 images

50,000 words

About the Author

David Maitland is an internationally acclaimed nature and science photographer and has a BSc Hons (St. Andrews) and a Doctorate (UNSW) in Zoology. David's academic research has focused on the form and function of life forms, especially invertebrates, and his publication list includes *Nature* papers on how maggots jump; crabs that breathe air with their legs; and asymmetry in the predation of trilobites. His specialist macro- and microscopy skills have been employed by the BBC for *Wonders of Life* and *Human Universe*. David is the recipient of international photography awards including POYi, Sony World Photography, British Photography Awards, and Wildlife Photographer of the Year. He was named European Wildlife Photographer of the Year in 2008 and winner of the International Images for Science, and RPS Gold Medallist, 2015. David lives in St. Andrews, Scotland.



Clouds

How to Identify Nature's Most Fleeting Forms

The wonder of clouds makes children of us all. Their mystery has captivated artists and scientists in equal measure, all seeking to capture their essential and elusive being.

Clouds explores the physics of clouds, and considers the historic attempts of painters and physicists to record their different incarnations. It then captures, curates, classifies, and measures every species—including those recently discovered—by considering the height, size, texture, arrangement, modifications, and movement of their many magical forms.

Alongside an engaging and expert meteorological narrative, *Clouds* analyses the studies of some of the greatest artists ever to look skyward, including John Ruskin, J. M. W. Turner, John Constable, and Frederic Edwin Church. It is an essential addition to every cloudspotter's collection, and an exquisite gift for every cloud aficionado.

Specifications

264 x 206 mm (8 x 10½ in)

224pp

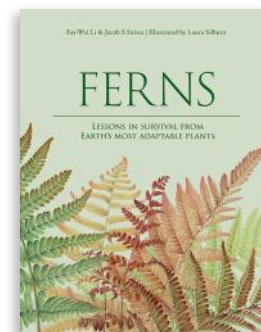
Four colour throughout

140 illustrations

50,000 words

About the Author

Edward Graham is an atmospheric scientist and Editor-in-Chief of the Royal Meteorological Society's flagship journal *Weather*. Formerly an operational weather forecaster, he is well known for his social media snippets and statistics about weather and climate (@eddy.weather). In Stornoway town, where he lives, Eddy runs the meteorological and climate consultancy "eddyweather"; he can also be found during times of extreme weather on national television and radio. At the University of the Highlands and Islands, he teaches within the geography, sustainable development, environmental and applied science departments. Eddy has participated in research projects in countries including the UK, Ireland, Canada, Chile, Switzerland, the UAE, South Africa, and Kenya.



Ferns

Lessons in Survival from Earth's Most Adaptable Plants

Ferns are the most remarkable of plants, and their science is both complex and beautiful. They have a unique way of reproducing and they reveal much about Earth's evolution.

Ferns tells a remarkable science story by tracing their origins to over 350 million years ago. It explores how ferns migrated onto land; how they sought light and interacted within ecosystems; how they survived mass extinctions; and what their ability to adapt can tell us about our warming planet.

Written by scientists with a passion for communicating research that is attracting media and social media attention, and illustrated with jewel-like details by an award-winning botanical artist, *Ferns* has much to say about our world's botanical past, present, and future.

Specifications

246 x 190 mm (7 ½ x 9 ¾ in)

192pp

Four colour throughout

100 illustrations

35,000 words

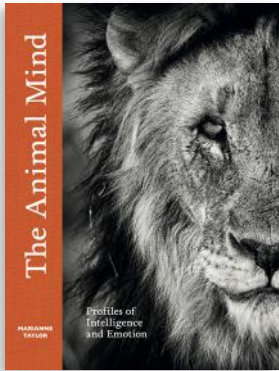
About the Authors and Illustrator

Fay-Wei Li grew up in Taiwan, and studied for his PhD at Duke University, USA, where he and his advisor, Kathleen Pryer, named a new fern genus *Gaga*, after Lady Gaga. In 2017, Fay-Wei joined Boyce Thompson Institute at Cornell University, USA as an Assistant Professor. His fern research has featured in the *New York Times*, *The Economist*, and *Rolling Stone* magazine.

Jacob S. Suissa completed his PhD in Evolutionary Biology at Harvard University, USA. As a classically trained botanist and evolutionary biologist, Jacob asks how plants build their bodies, how they function, and how they have evolved across geologic time, with a focus on ferns.

Laura Silburn is a botanical artist who has been contributing to the Eden Project Florilegium Society archive since 2010.





The Animal Mind

Profiles of Intelligence and Emotion

We are only beginning to understand the animal mind as being as complex as ours. Recent research reveals that prairie dogs speak in full sentences, although their Mexican wave habit is yet to be fully understood. Gorillas use sign language to describe past events to researchers, so does this mean they ruminate and relive their lives? When an ant looks in a mirror to see a dab of blue paint on its head, it tries to clean it off, proving the ant is self-aware like us, so exactly where are the boundaries of difference?

The Animal Mind explores instances of remarkable cognition, communication, consciousness, and culture in the animal kingdom, to offer a true anatomy of intelligence. Sixty animals are profiled and their cerebral behaviours explored, and each creature is also illustrated with a beautiful and sensitive portrait by a world-class nature photographer.

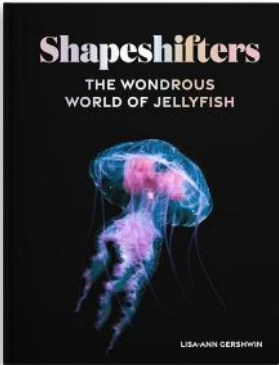
Specifications

246 x 190 mm (7 7/8 x 9 3/4 in)
240pp
Four colour throughout
120 photographs
63,000 words

About the Author

Marianne Taylor has authored more than 30 books on natural history including *The Way of the Hare*, *The Story of Life in 10 Species*, and *The Pocket Book of Bird Anatomy*. She has recently completed *The Gull Next Door* and has written a number of guides for the RSPB. She specializes in evolutionary biology and her work focuses on the dance between habitat, behaviour, and evolution. Her encyclopedic knowledge of animal life and an always rigorous line of questioning challenge her readers' often-held assumptions and encourage a sense of discovery.

Photographers include Peter Delaney, Melissa Groo, and Joel Sartore.



Shapeshifters

The Wondrous World of Jellyfish

Jellyfish are often dangerous and always beguiling. They come in a dazzling array of colors, shapes, and sizes, drifting through every ocean, from the surface to the deepest of the deep seas, and even in freshwater locations. Some are so delicate that they shatter with the smallest disturbance to the water, while the tenacity of others means they can withstand almost any temperature, level of salinity, starvation, and even being dismembered. And some jellyfish are considered biologically truly immortal.

Shapeshifters captures 100 species of these timeless organisms within its pages. Some splendid, some strange, some poisonous, some with surprising secrets, and some barely known, but every one remarkable and beautifully captured by stunning photography.

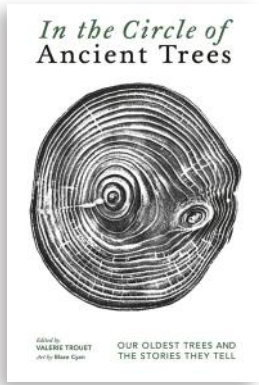
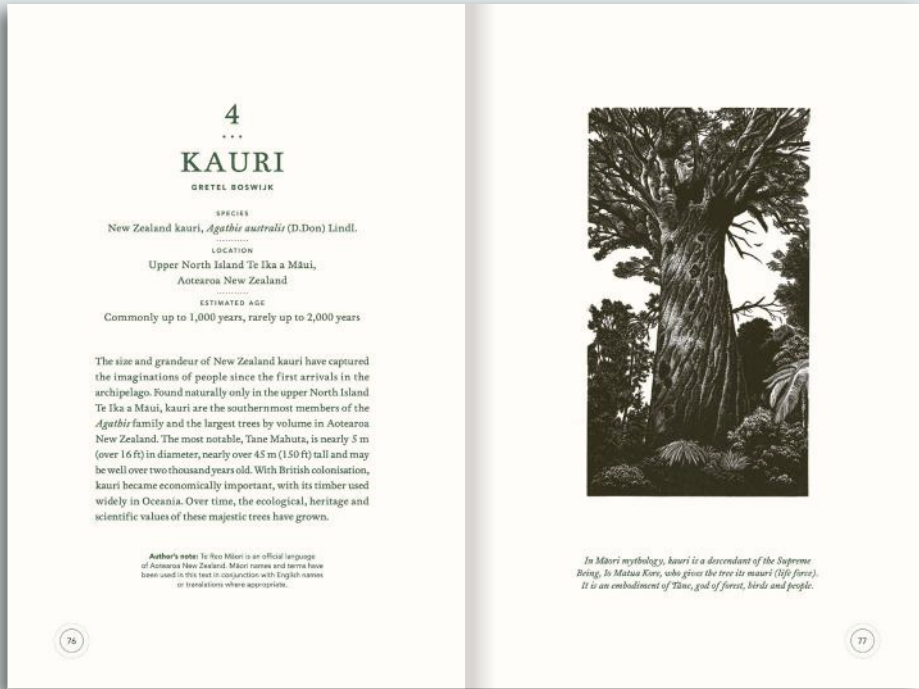
Specifications

246 x 190mm (8 1/2 x 9 3/4 in)
224pp
Four colour throughout
100 illustrations
17,000 words

About the Author

Lisa-Ann Gershwin was born and raised in California, where several chance encounters with jellyfish lured her into their enthralling world. Nowadays, with two well-received books, including *Stung: On Jellyfish Blooms and the Future of the Ocean*, two TEDx talks, more than 70 peer-reviewed scientific publications, and 216 new species of jellyfish (plus one new dolphin!) to her name, she lives and works in Australia's beautiful island state of Tasmania. Perhaps not surprisingly, her home is decorated like a jellyfish art gallery.





In the Circle of Ancient Trees

Our Oldest Trees and the Stories They Tell

In the growth rings of every tree are ingrained and encrypted the stories of the tree, its environment, and the climatic changes through which it has lived. The science of dendrochronology, and growing archives of tree-ring samples, allow us to read and decode these timelines with ever greater detail.

In the Circle of Ancient Trees narrates the stories of sixteen ancient and iconic trees, considering why they grew where they grew; how they fit into their habitat; and the human and ecological events to which they bore witness. The narratives begin and end with the tree's relationship to its location and environment, and consider what lessons for the future might be discovered in their past.

Illustrated with wood engravings, and featuring interviews with ecologists having local knowledge of each tree, *In the Circle of Ancient Trees* explores how human and environmental history share the same roots, while drilling down into the ecology, persistence, and resilience of each species.



Specifications

234 x 156 mm (6 x 9 in)
224pp
Two colour throughout
40 illustrations
60,000 words

About the Author and Illustrator

Valerie Trouet, a dendroclimatologist, is professor in the Laboratory of Tree-Ring Research at the University of Arizona. She wrote *Tree Story* (Johns Hopkins), a broad audience book about tree rings and climate history.

Blaze Cyan is a London-based landscape artist and engraver. She is an elected member of the Society of Wood Engravers, Honorary Secretary of the Royal Society of Painter-Printmakers and treasurer for The Arborealists.



Fungi Decoded

Encounters with Thirty Fungi

We are in something of a “fungal awakening.” Fungi are capturing our imaginations like never before, and when we think of fungi, we most commonly think of mushrooms, which include such miraculous manifestations as puffballs, jellies, and corals.

Fungi Decoded is a visual celebration of these diverse and astonishing forms. With an instantly engaging code-wheel set into the cover, it leads the reader through various pertinent yet playful themes, delving deep into the quirky workings of these enigmatic organisms. Taking a new spin on the planet's most fascinating and least understood world of living things, *Fungi Decoded* is the perfect gift for both new fungus fans and seasoned mycophiles.

ALSO AVAILABLE



Specifications

210 x 147 mm (5 3/4 x 8 1/2 in)
192pp
Four colour throughout
50 images
30,000 words

Features a spinning wheel
built into the cover

About the Author

Britt Bunyard is founder and editor-in-chief of *FUNGI Magazine*. His work has been featured in *The Atlantic*, *Vogue*, *The Washington Post*, *Forbes*, and many other leading media, and he has written several books, including *The Beginner's Guide to Mushrooms*, *The Little Book of Fungi*, and *The Lives of Fungi*. He holds a PhD in Plant Pathology and Mycology from Penn State University, and has lectured across the US and UK, including at the Mycological Association of Washington DC, the Los Angeles Mycological Society, and the London Fungus Network. He lives in Wisconsin, USA.

FUNGAL KINGS AND QUEENS

Unlike truffles and puffballs, boletes look like 'normal' mushrooms, with a cap on a stalk. Look underneath the cap, however, and you won't find any gills. Instead, boletes have a layer of tubes ending in a surface of pores from where spores are released into the air. Boletes make up an enormous group of macrofungi found in every forest.

One of the most prized edible mushrooms is the king bolete. It goes by dozens of names around the world and is actually a group of many similar species. *Boletus edulis* of Europe is the most widely known, but there are at least a dozen others that are nearly identical. All are large, growing to weights of 1.5 kilograms and reaching diameters of 40 centimetres. They all have white pores when young. The pore surface is compact and looks cottony. As these mushrooms mature, the pores turn olive yellow-green, never pinkish. Near the top of the stem is fine reticulation – a net-like pattern of raised tissue. No boletes in this clade stain or bruise when cut.

The king boletes of North America range from almost white, *Boletus barrowsii*, to tan and brown, to reddish brown, *B. rubricapae* of the Rocky Mountain region. All feature a fat stem (often wider than the cap) with white reticulation near the top.

46 THE SECRET WORLD OF FUNGI

FUNGAL ROYALTY



FUNGAL KINGS AND QUEENS 47

Omphalotus illudens 6 JACK-O'-LANTERN

MORPHOGROUP
Agaric
TROPHIC MODE
Saprotroph
DISTRIBUTION
Northern Hemisphere
HABITAT
Forests
SUBSTRATE TYPE
Wood

The jack-o'-lantern is a bright orange to brown-orange mushroom found growing from stumps or buried wood. It grows in clusters with stems fused at the base, with caps up to 30 centimetres wide and stalks 30 centimetres long.

All *Omphalotus* species are poisonous and produce a toxin called fluidein that causes severe gastric upset. Jack-o'-lanterns have a superficial resemblance to chanterelles (see page 152), and beginners do occasionally mix them up.



132 A KING OF THIRTY FUNGI

Omphalotus illudens is the bright orange jack-o'-lantern species from eastern North America and Europe (sometimes erroneously called *O. olearius*, but that species is European and mostly found on the wood of olive trees, as the name implies). *Omphalotus olivaceus* is the species known from the West Coast, featuring a dark orange colour with olive green tints.

Distinguishing this group from chanterelles is relatively easy. The gills of *Omphalotus* are orange and relatively sharp-edged (as opposed to the blunt ridges of chanterelles). The interior flesh of the jack-o'-lantern is orange, whereas the flesh of chanterelles is white.

The jack-o'-lantern is named for its pumpkin colour and the fact that it is found in October, but also because the gills and other parts produce an eerie glow in the dark. That's right – these are bioluminescent fungi (see page 82). Bioluminescence in nature has been known and documented about since ancient times. Aristotle and Pliny the Elder both wrote about it.

There are just four known lineages of bioluminescent basidiomycete fungi, with around 80 different species known to do this. Mushrooms familiar to us that glow include *Armillaria*, *Myrcena*, *Omphalotus* and *Panellus*. If the light comes from hyphae in wood, often called 'foxfire', it is most likely a species of *Armillaria*. The chemical basis for bioluminescence is well understood; the 'why?' is a little tougher. That it serves in the attraction of invertebrates for the purposes of spore dispersal has been studied but doesn't seem to be the case in most habitats. Bioluminescence may simply be a way for fungi to dissipate energy as a by-product of oxidative metabolism or it may be tied to detoxification of peroxides that are formed during ligninolysis by wood-rot fungi.

JACK-O'-LANTERN 133

The shape of shells

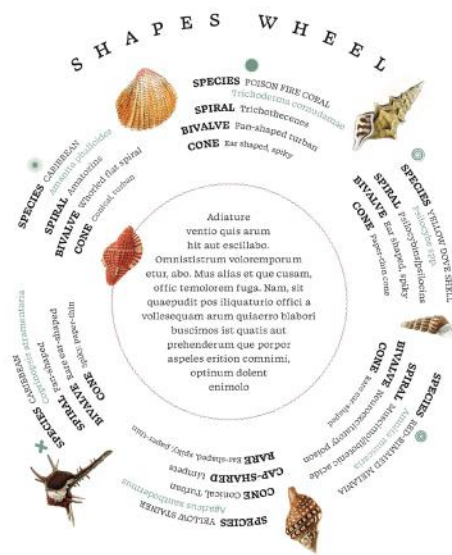
'Some say spiral shells echo the path of the soul.'
'Others believe they hold the whispers of the sea.'
'A coiled shell was once thought to trap time itself.'
'Its curves mirror the moon's pull and rhythm.'
'Even in ruins, a shell speaks of protection.'

Shells twist in spirals, curve into fans, stretch long and narrow, or curl like a closed hand. Each form is a survival strategy and a thing of beauty, shaped by movement, growth, and defence. Their geometry follows natural laws—symmetry, proportion, balance—yet they seem almost imagined. Smooth or ridged, pointed or round, shells carry elegance in every edge.

They start as soft forms and harden with time, marking growth in ridges and rings. From the tight coil of a periwinkle to the ruffled lips of a clam, shape tells story—of habitat, predator, and time itself. Some curve to disappear into sand, others flare to blend with coral. The spiral, in particular, repeats across species and oceans, like a language spoken only by the sea. To hold a shell is to hold that language in your hand, the record of time, pressure, silence, and instinct, captured in a structure as small as a thumbprint or as long as a palm. Every shape speaks—of growth, protection, and the secret geometry of life.

IN THE WORLD OF SHELLS

30



THE SHAPE OF SHELLS



The Shell Seeker

Encounters with Thirty Treasures from the Sea

Seashells are uniquely appealing; from beachcombing adults to children exploring rockpools, everyone can appreciate the natural beauty they embody. From the vast Australian trumpet shell to the exquisitely tiny *Ammonicera minorialis*, and with colours ranging from dazzling blue to palest pink, shells are one of the most beautiful and varied aspects of our natural world.

The Shell Seeker is a unique way of discovering these enticing forms. With an entrancing volvelle set into the cover, the book introduces a wonderful selection of shells from all seven continents. Juli Berwald reveals the remarkable and sometimes surprising features of shells, including bioluminescence, camouflage, gigantism and more.

Taking a new spin on this perennially popular subject, *The Shell Seeker* is the perfect gift for beachcombers and seasoned conchologists alike.

ALSO AVAILABLE



Specifications

210 x 147 mm / 5 3/4 x 8 1/3 in

192 pages

30,000 words

100 images

Four colour throughout

Features a spinning wheel

built into the cover



POPULAR NAME
Magnathetic

LATIN NAME
Elephantopus scaber L.

MOST COMMONLY FOUND
Min nimilquam es
paritas pellestrum

INTERESTING FACT:
Volcanoes erupt

SIZE RANGE
1/4 - 3 in (16 mm - 77 mm)

Articulated Harp Shell

| | |
|-------------------|--|
| HARPA ARTICULARIS | SIZE RANGE 1/4 - 3 in (16 mm-77 mm) |
|-------------------|--|

DISCOVER MORE

DISCOVER MORE
Anam voleremur nobis estis
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voluptatem fugiat iuscul ut emmihit
quom fugit lerem ipsam dolorem.
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simus, aoluptat apidebis sam, vit
ressitatur? Magnat as est eumqueus, ut
la pellen ectota imi erri ressin rehens
emihilquam, quasperebra imilquidest:
restu de quas ad quidicislen excessu ut
as dolorebus. Obis utela pelucia nullor sero
blausc et aut miniscut estion
pereritum ut qui odita quae quilant
exerem as mod min nobis ererit

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iderandae eliti sum voloreo cupate
estias mini aborum qua. Laborum
fugias provition pediaciens alitaped
qui dolum nos



A COLLECTION OF THIRTY SHELLS

152

153

ARTICULATED HARP SHELL



ALSO AVAILABLE



Specifications

210 x 147 mm / 5 1/4 x 8 1/2 in

192 pages

30,000 words

100 images

Four colour throughout

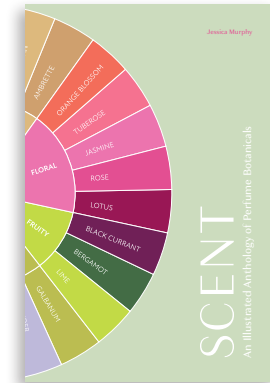
Features a spinning wheel
built into the cover

Butterflies, Bees & Beetles

Encounters with backyard pollinators

Step outside your back door and you'll find a world buzzing with miniature wonders hiding in plain sight, from the delicate shimmer of a butterfly's wings to the busy hum of a bee at work, bringing natural beauty to every leafy corner. *Butterflies, Bees and Beetles* is a celebration of these diverse and distinctive forms. With a playful volvelle set into the cover, the book introduces the most curious and common visitors likely to be encountered in the garden, and offers practical tips on how to identify and attract them. With the ever-growing concern of climate change, the humble insects buzzing around our backyards have never been more important. From pollinating flowers to recycling nutrients in the soil and improving biodiversity, these often-overlooked creatures are the unsung heroes of a healthy planet. Taking a new spin on the fascinating lives and legacies of backyard pollinators, *Butterflies, Bees and Beetles* is the perfect gift for both nature lovers and seasoned entomophiles.





Scent

An Illustrated Anthology of Perfume Botanicals

Scent explores the alluring natural history of perfume, tracing its origins back to the plants that have shaped fragrance for centuries. Curated by art historian Jessica Murphy and featuring exquisite and specially commissioned photography, this luxurious volume delves into the fascinating stories behind each plant, from bergamot and lemon to sandalwood and cedar, revealing the integral and long-held roles they have played in the art of perfumery.

With its high production values and opulent design, *Scent* is a captivating read for perfume lovers, natural history aficionados and anyone who appreciates the profound relationship between fragrance and the natural world. This elegant anthology is as beautiful as the botanicals it showcases, and offers a fresh and engaging perspective on the timeless appeal of fragrance.



Specifications

234 x 156 mm / 9.2 x 6.1 in

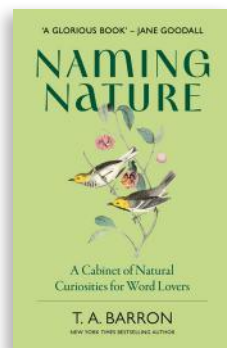
224 pages

40,000 words

32 images

About the Author

Jessica Murphy is an art historian working at the Brooklyn Museum, where she creates scented exhibition tours as well as traditional gallery experiences. Previously a curator at the Metropolitan Museum of Art, she has been interviewed for *InStyle Magazine* (4.3 million Instagram followers), contributes to leading perfume blog *Now Smell This* and has lectured on fragrance at the Corning Museum of Glass, the Institute for Art and Olfaction and the Morbid Anatomy Museum. She holds a residency at the New York Public Library's Center for Research in the Humanities, where she is researching the cultural and visual histories of perfume. She lives in New York City.



Naming Nature

The Stories Told by the Names We Choose

Every language has its own words for the “endless forms of beauty” that make up our natural world. Whether founded in commonly shared or gloriously niche etymology, human ways of seeing nature have flowered into words loaded with hidden meanings, twisted roots, and magical resonance.

Take elephants, for instance. African languages often focus on the power of the animal; Tswana and Tsonga refer to “the unstoppable one”, and Zulu to the “one crashing through.” In ancient European languages, however, elephants were seen as commodities. When Homer and Hesiod spoke of *eléphās* in the 7th century BCE, they simply used the word for ivory.

Naming Nature explores the immense variety of language used to describe the landscapes and creatures with which humans have lived for millennia.

From butterflies and hummingbirds to narwhals and leopards, the book celebrates our wondrous natural world through the many different ways we have interpreted it.

Specifications

213 x 136 mm (5 ½ x 8 ½ in)

256pp

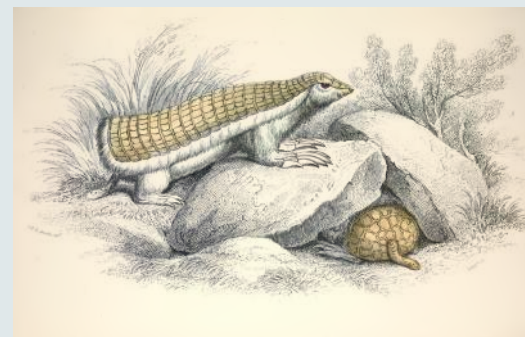
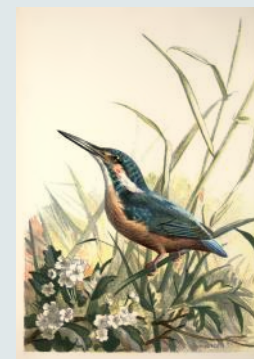
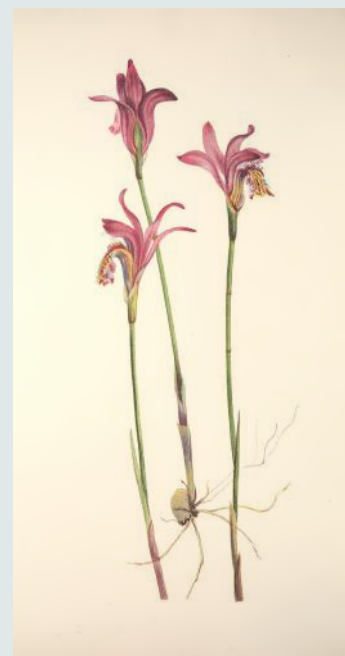
Four colour throughout

65 images

40,000 words

About the Author

T. A. Barron is a passionate conservationist and *New York Times* bestselling author. He has won various literary prizes including the Nautilus Award Grand Prize and the de Grummond Medallion, and his popular children's series *The Merlin Saga* is currently being adapted into film by Disney. Barron's lifelong love for the natural world has led him to found various initiatives to encourage environmental awareness, including scholarships in environmental law at Harvard University and a biodiversity research fund. Born in Massachusetts, he studied at Princeton, Oxford, and Harvard before moving to Colorado, where he now lives with his family.



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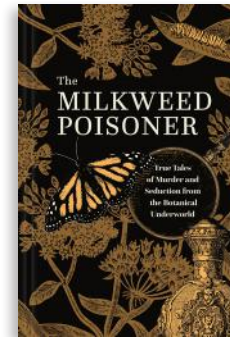
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The Milkweed Poisoner

True Tales of Murder and Seduction
from the Botanical Underworld

The botanical world is a tangled web of interactions, both between plants, and in their relationships with mammals, birds, insects and fungi. Evolutionary scientists are revealing more and more survival strategies such as mutualism, mimicry and manipulation that reveal a remarkable range of plant intelligence, adaptation and cooperation.

The Milkweed Poisoner takes a 'true crime' approach to botanical science. It is divided into casebooks of 'murders' including the Strangler Fig asphyxiating its host, or the Black Walnut poisoning its neighbours; 'seductions' such as the Bee Orchid disguising itself as a female bee, or the Moonflower enticing bats with its sweet perfume; and 'conspiracies' like the Bullhorn Acacia engaging ants to mutilate competing plants, or Sagebrush sending alarm signals to Tobacco for mutual defence. Revealing a natural world that is red in root and leaf, *The Milkweed Poisoner* is a unique giftbook for naturalists, botanists and curious gardeners who wish to know the truly dark secrets of the soil.

Specifications

234 x 156mm / 6 x 9 1/4 in
224pp
Four colour throughout
64 artworks
50,000 words

About the Author

Dale Walters is Emeritus Professor of Plant Pathology at Scotland's Rural College (SRUC). He was leader of the Crop Protection research team, and taught courses in Plant Biotic Interactions, Plant Pathology and Plant Responses to Stress for over 35 years. He is also a Fellow of the Royal Society of Biology. Dale is the author of two titles for general readers (*Chocolate Crisis* and *Fortress Plant*), as well as numerous textbooks and academic papers. His research interests include: induced resistance to plant pathogens, novel approaches to plant disease control, and plant-pathogen interactions.

Tales of Seduction

18

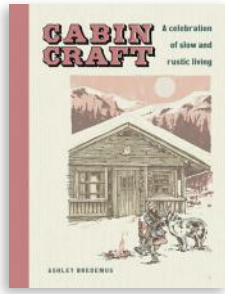
Queen of the Night

Common Name: Queen of the Night
Aliases: Night-Blooming Cereus, Large-Flowered Cactus,
 Sweet-Scented Cactus, Yucca Cactus
Latin Name: *Selenicereus grandiflorus*
Order: Caryophyllales
Family: Cactaceae
Endemic: West Indies, South America, Central America
Crime Note: Blooms only one night a year, withers within hours

When the Queen of the Night reveals her true beauty, you would do well to capture the moment. This is a plant that reveals its seductively beautiful flower for only one night a year, which then withers within hours. It sounds like a tragic fairy-tale, some sort of botanical Sleeping Beauty, consuetudine adipiscens elit. Varius then at vulpate molestia tortor semper facilisi malesuada curae. Eros platea maecenas cras taci morbi himenaeos neque. Facillisi ultricies potenti facilisi dui cursus parturient habitasse sagittis. Himenaeos fringilla vitae finibus; quisque vivamus dictumst. Proin amet ut senectus torquent platea. Dictum arcu litora luctus interdum; adipiscing aliquam sagittis luctus. Ex etiam nascetur libero scelerisque tempor aliquet eleifend netus. Cras vulpate litora mi fames; curabitur vitae purus.

Hendrerit commodo turpis finibus ut orci elementum. Dolor tellus mattis quisque ut nisi curabitur gravida et. Suscipit tellus leo integer vitae scelerisque. Quis fusce libero cras tellus ornare elementum erat. Morbi vitae phasellus lacus nulla ultricies ad finibus. Pulvinar suspendisse tempor lobortis eget mauris netus proin inceptos. Tellus conubia





Cabincraft

A Celebration of Slow and Rustic Living

Step into a world where simple living and an appreciation of nature are combined with *Cabincraft*, the ultimate guide to bringing the great outdoors in. With its vintage aesthetic and cosy feel, the book is a wonderful celebration of all things rustic and timeless.

Explore the joys of seasonal rituals and the art of slowing down. From creating warm interiors to discovering traditional crafts like knitting, preserving and wood carving, *Cabincraft* invites you to embrace the enduring appeal of a life lived in harmony with the wild.

Whether you dream of a cabin in the woods of your own, or simply want to bring the spirit of cabincraft into your everyday life, this beautiful book will inspire you to find peace and beauty in the simple things.

Specifications

246 x 190 mm / 9.7 x 7.5 in
224 pages
30,000 words
100 images

About the Author and Illustrator

Ashley Bredemus lives in a cabin in the remote wilderness of Minnesota; she is semi off-grid and her home is accessible only by water. She has been writing about and celebrating the cabin lifestyle and seasonal living for many years, including via her popular Instagram account which has more than 40,000 followers.

Lee John Philips is an illustrator, painter and sculptor best known for The Shed Project, for which he is illustrating every single item left behind in his grandfather's shed when he died. To date, Lee has drawn more than 8,500 items from the shed, and he estimates that it contains more than 100,000 items in total. He lives with his dog in a cabin, which sits in four acres of ancient woodland, close to the sea in western Wales.

INTRODUCTION

What is Cabincraft?

Heat licks up my back from the maple logs crackling in the woodstove, as my gaze drifts out the picture window of my small cedar cabin. Snow hugs the boreal forest which sprawls from my doorstep. It's a cold day by Minnesota standards, minus 20! but that means the sun is shining. My sheepdog dug into the snow to the frozen river beyond the trees, perhaps in search of the leftover fish my husband sank there the night before, after catching a trout for our dinner. The crisp February air hits my lungs as I step onto the porch, calling her name and wishing I had slipped on my boots instead of tiptoeing out in my stockings.

"Arlo, come," echoes twice over the sparkling winter landscape. Aside from my echo, the only other sound is a raven flapping its wings overhead, followed by the crunch of Arlo pocking back up the path to our cabin. She nudges my hand with her wet nose and we shuffle back inside, greeted by the heat from the woodstove as if it were a second person in my home.

Before I moved into my little cabin, this kind of life felt like an impossible fantasy to me - to escape the bustle, find my own pocket of wilderness, and be set free from the trappings of the modern world. To find stillness, enough to hear my own true thoughts. To romanticize a simpler life, one made by my hands. The making of this fantasy into tangible reality is what Cabincraft is all about. Turning fiction into a craft that can be worked into the layers of anyone's life.

I've lived in my remote, semi-off grid cabin in the woods since 2018 and can say that, although there have been misadventures along the way, the dream can be made real on many levels. And I mean that whether you already have a cabin, aspire to own a cabin someday, or would simply like to infuse your current lifestyle with a dose of cabin culture.

Cabincraft is an invitation to slow down and claim either some parts or all of this fantasy as your reality. An invitation to return to the tradition of making a life in rhythm with nature, inspired by the past and written for the present. Join me as I explore the elements of cabin living and set out the many ways you can fold them into your own day-to-day.

4 INTRODUCTION



WHAT IS CABIN CRAFT 5

There's something about cabin living that naturally inspires crafting. My theory is that the relaxation often found in this way of life leads to the simple joys of hobbies like knitting, whittling, gathering wildflowers, trying your hand at making candles from scratch, and so much more. For me, it's knitting. For my grandmother, who also lived in a cabin in the woods, it was woodcarving. For my neighbors (yes, I have some neighbors), it's weaving, pottery, quilting, and jewelry making.

This impulse to create with your hands ties into the mindfulness we discussed a few chapters ago. It's easiest to appreciate the now when your hands are at work creating something of beauty or practicality.



18 CRAFTING THE CABIN LIFE

Traditional crafts and hobbies

On the note of beauty and practicality - traditional cabin crafts were rooted in necessity, resourcefulness, and connection to the land. It was, and still is, about making life in such a dwelling and wilderness setting more functional and comfortable while drawing in the beauty of nature. Combine the necessity of such crafts with the relaxation of modern-day cabin living and you've got a recipe for several different crafting categories.

Wood-Centric Crafts:

- Carving and Whittling - spoons, coat hooks, tool handles, bowls
- Bark Weaving & Flowering - baskets, chair seats, canoe repairs (or canoes entirely), ornaments, knit doilies, and other containers

Textile Crafts:

- Knitting & Crocheting - blankets, sweaters, socks, hats, mittens, scarves, pet blankets
- Rag Making - using scraps of fabric and old clothes to weave rag
- Quilting - bedding, throws, blankets, wall coverings, everything through quilt patterns

Sewing and Mending:

- Hand Sewing - darning, tailoring, embroidery, making clothing hooks
- Waxed Canvas Work - firewood carriers, tool rolls, waterproof bags, heavy duty repairs

Kitchen Crafts:

- Candle Making - beeswax pillar/candle/light candles
- Soap Making - tallow or lye with herbal infusions like lavender
- Tinctures & Other Herbal Remedies - other grown in the garden and used for medicinal purposes as well as self-care

- Cheese Making & Butter Churning - easier than you might expect with modern tools

Natural Fiber Plant-Based Crafts:

- Brown Making - twig baskets with a carved wooden broomstick
- Natural Dyes - dying your own fabrics with plants found in nature
- Basket Weaving - using grasses like sweetgrass

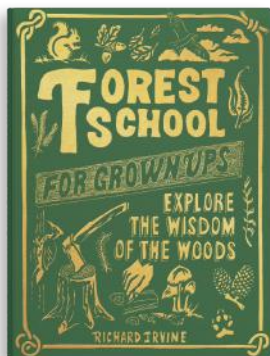
Fire and Survival Crafts

- Fire Starters - using common items like wax, pinecones, and onion bulbs
- Tinder Bundles - foraging for bark bark and cedar to make shavings
- Natural Cordage - twisting plant fibers/rope together

Preservation Crafts

- Canning and Dehydrating - preserving summer's harvest for the winter season
- Fermenting - sauerkraut, pickles, sourdough, yogurt, etc.
- Smoking and Curing - fish and meat mostly

TRADITIONAL CRAFTS AND HOBBIES 25



Forest School for Grown Ups

Explore the Wisdom of the Woods

Forest schools for kids originated in Scandinavia as outdoor play-based learning groups. By the 1990s, forest schools had been established in Germany, California, and the UK, with the benefits of nature play being internationally recognized, and in 2016 the Forest School Foundation was established in the USA.

But why should kids have all the fun? Connecting with green spaces, trees, and plants can lift our spirits, lower our stress levels, and relax our brains – in short, playing outside is good for adults too.

Forest School for Grown Ups is here to help. From finding your way in the woods to foraging for food, knowing your knots, and whittling utensils, you can learn new skills and practice forgotten ones.

Beautifully designed, with an engaging writing style and high production values, the 130+ entries in *Forest School for Grown Ups* provide the perfect resource for kids of all ages to enjoy spending quality time outdoors.

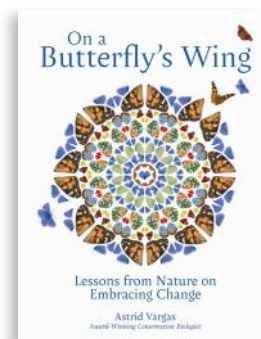
About the Author and Illustrator

Richard Irvine is an experienced outdoor educator, trainer, and writer specialising in experiential learning in woodlands. He has a passion for the power of residential and outdoor learning and has an in-depth understanding of the subject.

Ulysses Black is a talented visual artist based in Brighton, UK. His lino-cuts have featured widely on theatre poster design and arts venues. His unique handmade lino-cut illustrations feature on the cover of *Forest School for Grown Ups*, as well as throughout the book as chapter openers.

Specifications

246 x 190 mm (7 ½ x 9 ¾ in)
224pp
Four colour throughout
100 illustrations
75,000 words



On a Butterfly's Wing

Lessons from Nature on Embracing Change

In our era of global change, we need stories that offer hope and positive solutions to the challenges we face. *On a Butterfly's Wing* is a true story, told by one of the world's leading conservationists, who describes how the parallel lives of a butterfly and a beloved mother can help us to reflect on the unique privilege of being alive. Its narrator (La Reme, the butterfly herself) shows us how the stages in the butterfly life cycle offer lessons for the difficult transformations of our own. We are encouraged to shed our skins as caterpillars do; to collaborate with others like cells within a chrysalis; and to spread the multi-colored wings of our imaginations.

En route, we discover the remarkable 12,000-kilometer migratory cycle of painted lady butterflies, which can take three generations to travel from Norway to Africa. Their remarkable journey serves to remind us that our own transient lives – made from particles billions of years old – connect us all in the universe's own constant metamorphosis.

About the Author

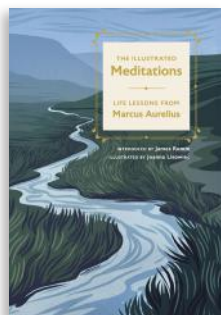
Astrid Vargas is a conservation biologist with a track record in setting up, developing, leading, and monitoring environmental restoration programmes. She has been a key figure in the recovery of three of the world's most endangered species: the Iberian lynx in Spain, the black-footed ferret in North America, and the golden-crowned sifaka in Madagascar. Astrid was named by *El País*, the Spanish newspaper of record, as one of the Top 100 people in Ibero-America – men and women who have made a difference.

Specifications

215 x 165 mm (6 ½ x 8 ½ in)
128pp
Four colour throughout
50 images
9,000 words
Target age range: 11–adult

“Every so often a book comes along with a sweep and magic that means that you’ll rarely find a copy languishing in a second-hand bookshop because it has metamorphosed into a family treasure.”

– Sir Tim Smit, co-founder, Eden Project



The Illustrated Meditations

Life Lessons from Marcus Aurelius

The twelve books of *Meditations* were written over 2,000 years ago by the Roman emperor and philosopher, Marcus Aurelius, as a personal diary of notes, nudges, and mental exercises to help him live a good life. Yet, with their gentle instructions on living stoically, in harmony with nature and in pursuit of the “common good,” they seem the perfect fit for managing the modern malaise. Little wonder that legions of text-only translations are dominating the bestseller lists.

The Illustrated Meditations takes all that is admirable about Aurelius, and elevates it. A curated selection of his most significant life lessons are arranged thematically in chapters, and carefully edited to make them mindful of today’s readers. Introductions explain their history and philosophy, and a commentary is provided by a modern philosopher. Most significantly, a selection of 50 meditations are beautifully illuminated with thoughtful and witty commissioned artworks to bring them to life.

Specifications

195 x 135 mm (5 7/8 x 7 1/8 in)

192pp

Four colour throughout

74 images

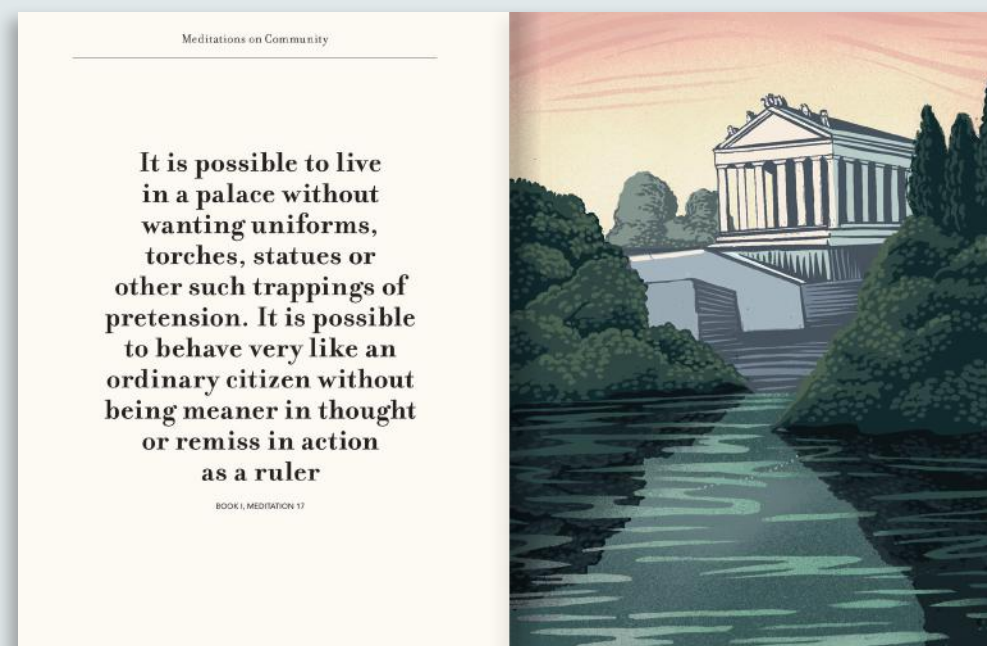
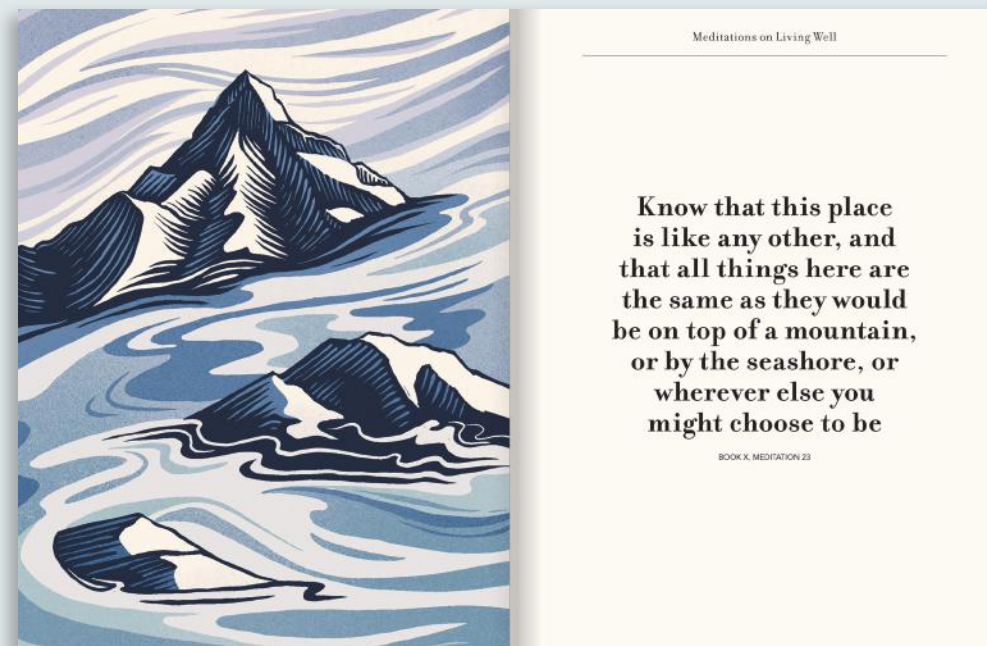
20,000 words

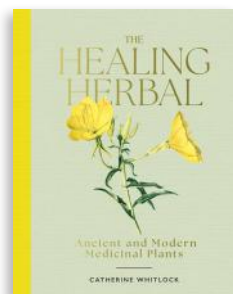
About the Author and Illustrator

Marcus Aurelius Antoninus (121–180 CE) was a Roman emperor and general who ruled over the Empire for two decades. He was a Stoic philosopher who wrote his *Meditations* in Greek for his personal instruction, drawing on the work of Epictetus. They have since come to be considered one of the greatest works of spiritual reflection ever written – required reading for statesmen and philosophers, and inspiration to generations of readers who have responded to the intimacy of his writing.

James Romm is Professor of Classics at Bard College in Annandale, New York, and the author of several books on the ancient world, including *Dying Every Day: Seneca at the Court of Nero*. His reviews and essays appear regularly in the *Wall Street Journal* and the *London Review of Books*. He is the editor of the *Ancient Lives* series published by Yale University Press.

Joanna Lisowiec is an award-winning illustrator and designer. Originally from Poland, she lived in the US and Switzerland before settling in Yorkshire, UK. She is known for her bold style of illustration, which often focuses on the beauty of nature and narratives inspired by folklore, and her clients include Penguin Random House, Faber & Faber, and Pavilion. She holds degrees from Edinburgh College of Art and the University of Leeds.





The Healing Herbal

Ancient and Modern Medicinal Plants

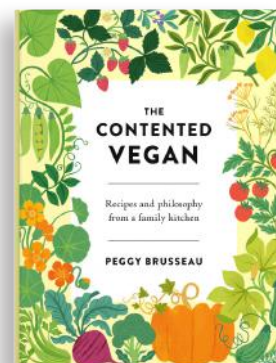
Interest in traditional herbal remedies has never been greater, and as we all battle with the challenges of the hectic and technological modern world, escape can often be found in medicines from ancient and gentler times.

The Healing Herbal is a beautiful work of reference featuring 100 plants and their influence on medicine through the ages, from ancient civilization to the present day. Authoritative and engaging text includes the very latest research on both traditional and more recently discovered herbal remedies.

Cross-reference features identify a medical condition or ailment and the corresponding plant that may help provide an essential contribution to treatment. Each entry features botanical artwork of flora, leaves and seeds that form the basis of pharmaceutical drugs, from *Adonis vernalis* to *Vinca minor*.

About the Author

Dr. Catherine Whitlock is a science writer with a BSc in Biological Sciences, a PhD in Immunology, and a Diploma in Science Communication. Catherine writes on science, medicine, and nature and is based in Kent, England. Her previous books include *Meet Your Bacteria* (Cassell) and *Ten Women Who Changed Science and the World* (Little Brown).



The Contented Vegan

Recipes and Philosophy from a Family Kitchen

The Contented Vegan is your essential guide to transitioning to a vegan lifestyle, combining mouthwatering recipes with practical, inspirational, and reassuring advice on making the switch.

Food writer Peggy Brusseau has been a vegan for over 30 years and is often asked for advice by people considering changing their diet. In this book she answers all these questions and more, as well as providing over 100 delicious recipes to inspire you in the kitchen, from breakfasts and snacks, through to easy midweek suppers and celebration feasts.

Beautifully photographed throughout, *The Contented Vegan* provides all the information you need to become a happy, healthy, contented vegan.

About the Author

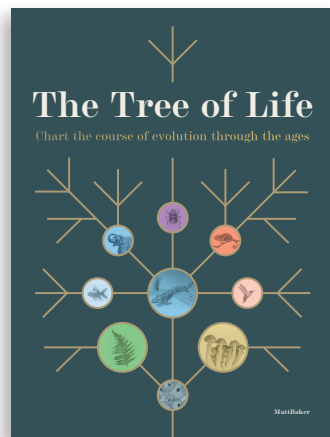
Peggy Brusseau is a food writer, cook, and committed vegan. She has written or co-written over 20 books on cookery and nutrition. Originally from Minneapolis, USA, she is now based in London, where she lives with her husband and two sons.

Specifications

209 x 162 mm (6 ½ x 8 ¼ in)
224pp
Four colour throughout
200 illustrations
60,000 words

Specifications

246 x 190 mm (7 ½ x 9 ¾ in)
272pp
Four colour throughout
100 illustrations
75,000 words



Specifications

305 x 229 mm (9 x 12 in)

80pp

Four colour throughout

50,000 words

The Tree of Life

Chart the course of evolution through the ages

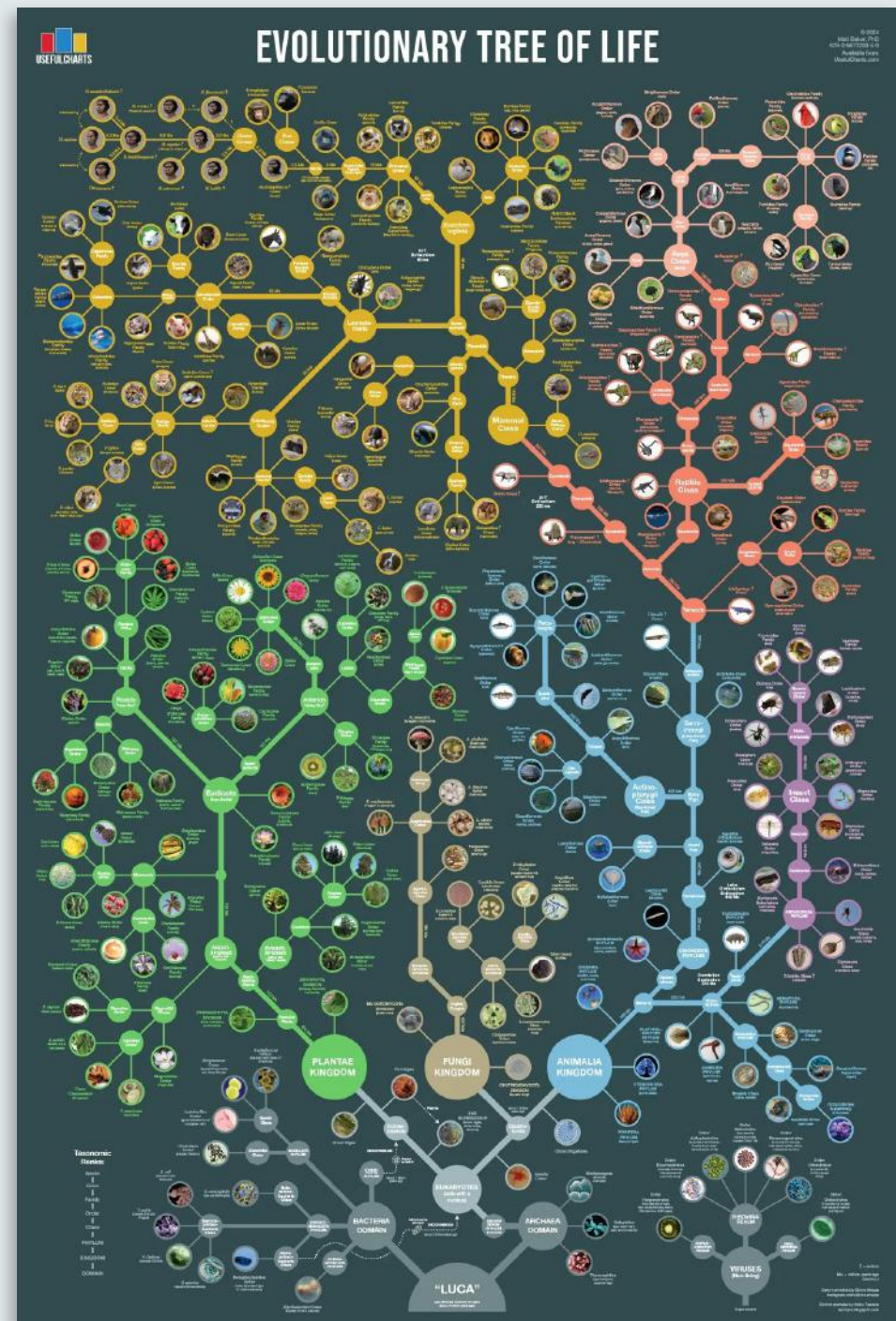
The Tree of Life is a unique work of visual reference charting the evolution of life through the ages, comprising a wonderful collection of oversized foldout charts. Featuring detailed timelines and highlighting key events for each stage of the evolutionary process, this dazzling book captures the essence of our shared history.

Whether you're a biology student, a keen zoologist or simply curious about our world, *The Tree of Life* provides an immersive and visually stunning exploration of life from its earliest beginnings, billions of years ago.

About the Author

Matt Baker is the founder and creator of UsefulCharts. Now with nearly two million Youtube followers, UsefulCharts is known for its educational content and particularly its detailed and visually engaging charts on topics related to history, religion, science and linguistics. Baker combines his passion for visual storytelling with his academic background to explain complex subjects in an accessible and engaging way. He holds a PhD in education and lives in Vancouver, Canada.

Ashleigh Griffin is Professor of Evolutionary Biology at the University of Oxford. She started her career at the University of Edinburgh in 1999, when she was awarded a PhD for her work on meerkats. She moved on to research social evolution, using comparative analyses of cooperatively breeding vertebrates, and experimental evolution with bacteria. She combines these two approaches to this day. She was appointed to a lectureship in the Department of Zoology at Oxford in 2013.





The Little Books of Nature SERIES

The Little Books of Nature is a stunning series of beautifully illustrated and expertly written books for the natural history enthusiast. Volumes cover butterflies, fungi, trees and much more.

Structured in a miscellany style, each book is packed with facts, myths, and folklore to provide an accessible and enjoyable reference. Each spread covers a range of topics from anatomy and diversity, to habitat and conservation, to reproduction and ways of life.

With high production values including tactile covers and foil blocking, this charming series is perfectly positioned as the ideal gift or self-purchase for all admirers of the natural world.

Specifications

152 x 95 mm (3 1/4 x 6 in)

160pp

Four colour throughout

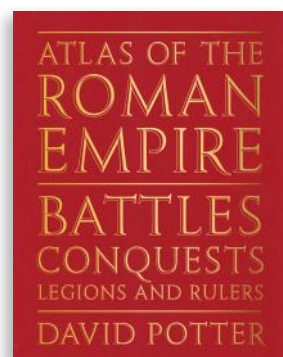
140 illustrations

30,000 words

About the Illustrator

Tugce Okay works with watercolours and is dedicated to bringing the unique characteristics of various elements of the natural world to paper, allowing them to tell their own tales. She currently lives and works from the calm countryside of Linköping, Sweden.





Atlas of the Roman Empire

Battles, Conquests, Legions and Rulers

At its peak, the Roman empire stretched from the borders of Scotland to the shores of the Persian Gulf and boasted a population of between 70 and 100 million. Founded by Augustus in 31 BCE, and enduring for over four centuries, the empire witnessed some of the most famous – and notorious – figures in history: Tiberius, Caligula, Claudius, Nero, and a rogue's gallery of ruthless generals who brought the *Pax Romana* to much of the known world.

Written by one of the world's leading academic experts, *Atlas of the Roman Empire* explores every aspect of the empire's rise, apogee, and fall. Comprehensive political maps show the dynamic ebb and flow of conquest and resistance. Battle maps illustrate key victories and defeats, illuminating the tactics that made Rome so successful, as well as its errors and disasters. Also featured are stunning photographs of shields, swords, spears, and fortifications, illuminating the ancient arms race that decided the outcomes of battles and the fates of nations. Political and social life is not neglected, featuring surprisingly intimate portraits of life across the empire, from the emperor himself to subjects in far-flung provinces.

Packed with detail, anecdote, and remarkable archeological artifacts, this is the ultimate guide to the imperial era.

About the Author

David Potter is Francis W. Kelsey Collegiate Professor of Greek and Roman History and Arthur F. Thurnau Professor in the Department of Classical Studies at the University of Michigan, where he has taught for more than 25 years. He is the author of more than 10 books on Roman history and appears regularly on the History Channel.

Specifications

264 x 206 mm (8 1/2 x 10 1/4 in)

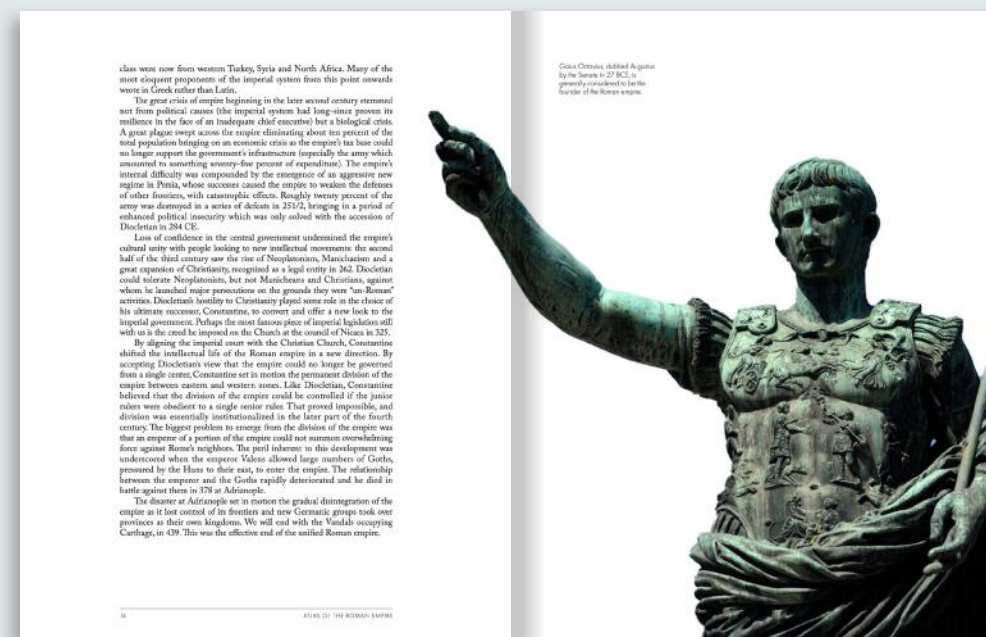
320pp

Four colour throughout

125 photographs, maps, diagrams,

and battle plans

80,000 words



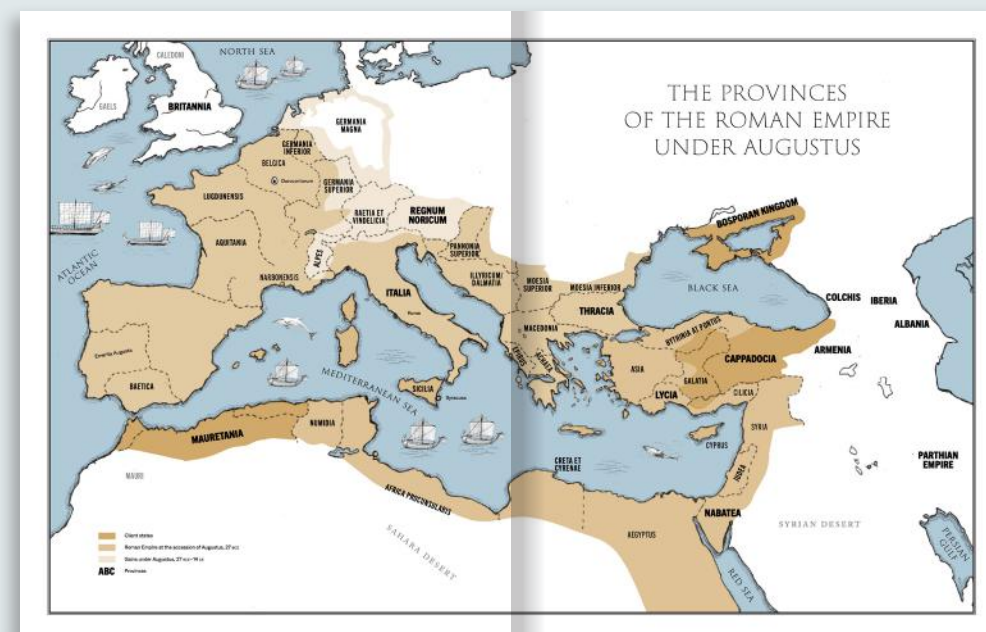
class were now from western Turkey, Syria and North Africa. Many of the most eloquent proponents of the imperial system from this point onwards wrote in Greek rather than Latin.

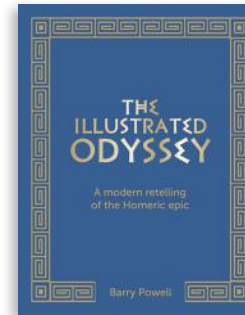
The great crisis of empire beginning in the later second century stemmed not from political causes (the imperial system had long since proven its resilience in the face of an inadequate chief executive) but a biological crisis. A great plague swept across the empire eliminating about ten percent of the total population bringing on an economic crisis as the empire's tax base could no longer support the government's infrastructure (especially the army which amounted to something seventy-five percent of expenditure). The empire's internal difficulty was compounded by the emergence of an aggressive new regime in Persia, whose successes caused the empire to weaken the defenses of other frontiers, with catastrophic effects. Roughly twenty percent of the army was destroyed in a series of defeats in 251/2, bringing in a period of enhanced political insecurity which was only ended with the accession of Diocletian in 284 CE.

Loss of confidence in the central government undermined the empire's cultural unity with people looking to new intellectual movements: the second half of the third century saw the rise of Neoplatonism, Manichaeism and a great expansion of Christianity, recognized as a legal entity in 362. Diocletian could tolerate Neoplatonism, but not Manichaeism and Christianity, against whom he launched major persecutions on the grounds they were "un-Roman" activities. Diocletian's hostility to Christianity played some role in the choice of his ultimate successor, Constantine, to convert and offer a new look to the imperial government. Perhaps the most famous piece of imperial legislation still with us is the creed he imposed on the Church at the council of Nicaea in 325.

By aligning the imperial court with the Christian Church, Constantine shifted the intellectual life of the Roman empire in a new direction. By accepting Diocletian's view that the empire could no longer be governed from a single center, Constantine set in motion the permanent division of the empire between eastern and western zones. Like Diocletian, Constantine believed that the division of the empire could be controlled if the junior rulers were obedient to a single senior ruler. That proved impossible, and division was essentially institutionalized in the later part of the fourth century. The biggest problem to emerge from the division of the empire was that an empire of a portion of the empire could not muster overwhelming force against Rome's neighbors. The peril inherent in this development was underscored when the emperor Valens allowed large numbers of Goths, pressed by the Huns to their east, to enter the empire. The relationship between the emperor and the Goths rapidly deteriorated and he died in battle against them in 378 at Adrianople.

The disaster at Adrianople set in motion the gradual disintegration of the empire as it lost control of its frontiers and new Germanic groups took over provinces as their own kingdoms. We will end with the Vandals occupying Carthage, in 439. This was the effective end of the unified Roman empire.





The Illustrated *Odyssey*

A Modern Retelling of Homer's Epic

Homer's *Odyssey* is one of the world's oldest and most famous works of literature. It has enthralled readers for almost three thousand years with its tales of gods and monsters, warriors and kings, but also of family, faith, and the universal longing for home.

This stunning new edition of Homer's epic features a brand new retelling by celebrated classicist Barry Powell, who has studied, written about, and lectured on Homer for over three decades.

Barry's retelling is accompanied by sixty newly commissioned artworks, bringing the iconic scenes and characters to life, from the brutish Polyphemus, to the monstrous Scylla and Charybdis, mysterious Circe, faithful Penelope, and Odysseus himself.

Specifications

230 x 180mm / 7 x 9 in.
256pp
60 images
60,000 words

About the Author and Illustrator

Barry Powell is the Halls-Bascom Professor of Classics Emeritus at the University of Wisconsin-Madison, where he taught for thirty-four years. He has translated the *Iliad*, the *Odyssey*, and the *Aeneid* for Oxford University Press. He has published a translation of the poems of Hesiod. He has contributed to classical journals. He has also written short fiction (*The House of Odysseus and Other Short Fictions*), novels (*Ramses in Nighttown*, *A Land of Slaves*, *The Berkeley Plan*, *Return to California*), poetry (*Rooms Containing Falcons*), and a screenplay (*Helen of Troy*).

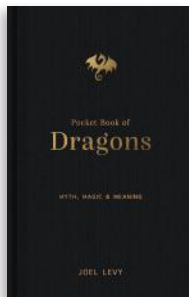
Joanna Lisowiec is an award-winning illustrator and designer. Originally from Poland, she lived in the US and Switzerland before settling in Yorkshire, UK. She is known for her bold style of illustration, which often focuses on the beauty of nature and narratives inspired by folklore.

Pocket Book of Dragons

Myth, Magic & Meaning

Each *Pocket Book of Myth* serves as a miniature cabinet of curiosities; the literary equivalent of the *kunstkammer* of a Renaissance prince, presenting an array of marvels and wonders.

Celebrating the stories and symbolism of the king of the mythical beasts, the *Pocket Book of Dragons* encounters dragons from throughout history and across the world. Chapters deal with the ancient Near and Middle East; Greece and Rome; the Norse and Celtic worlds; China and the Orient; and medieval Europe, as well as the literary and fictional traditions of the modern era. Special features explore fascinating diversions such as the possible inspirations for dragons; the biological constraints that explain why they cannot truly exist; their attributes and habitats; and where dragon hunters can track down the most magnificent examples in art and culture.



Specifications

162 x 105 mm (4 x 6 1/2 in)
160pp
Four colour throughout
60 images
20,000 words

About the Author

Joel Levy is a writer specializing in the intersection of history, science, and the unexplained. He was the author and creative force behind the groundbreaking 2000 book, *Fabulous Creatures and Magical Beings* (described by one reviewer as the nearest thing to Harry Potter's biology textbook), and has written on topics from Atlantis to Stephen Hawking. His published titles include *Gothic Science: The Era of Ingenuity and the Making of Frankenstein*, *Poison: A Social History*, and *Reality Ahead of Schedule: How Science Fiction Inspires Science Fact*.

Chapter VII

Dragon Relics

In Early Modern Europe faith in the reality of dragons was still very much up for grabs, and those inclined to believe could point to tangible proof in the form of specimens displayed in multiple institutions. These were put on show in line with the tradition of *Wunderkammer* ("cabinets of curiosities"), in which marvels of nature were collected to illustrate the wonder of creation. Some of these can still be seen in museums today.

Many of them were old bones—particularly of prehistoric creatures—especially those collected from caves where dragons were thought likely to live. Johannes Hain's 1672 *Of the Dragons of the Carpathian Caverns* includes drawings of cave-bear bones discovered in caves in the Carpathians, known today as Drachenhöhle and Drachenlock Cave. Such bones can now be seen in churches including Wawel Cathedral in Kraków, Murano's Church of Santa Maria e San Donato, and the Cathedral of San Leucio in Atezza.

More impressively, whole dragon specimens could be viewed (for a fee) in private cabinets, such as Ulisse Aldrovandi's late-sixteenth-century museum in Bologna, or the amazing Hydra of Hamburg. When

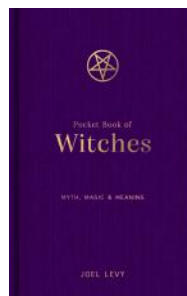
Dragon Hunting



Above: A copy of a 1734 illustration of the notorious Hydra of Hamburg, by the Dutch naturalist Albert Seba, who believed the creature to be genuine.

Swedish naturalist Carl Linnaeus visited Hamburg in 1735 he revealed the Hydra to be a fake, made from snakeskin and weasel, but his public debunking upset the monster's owners and he left town under a cloud. A surviving stuffed dragon that can still be seen today is the Brněnský drak (Dragon of Brno), which hangs in a passageway in the Czech city, but disappointingly is obviously a crocodile.





Pocket Book of Witches

Myth, magic and meaning

Witches lurk beneath the surface of every culture and age, viewed with fascination and fear in equal measure, revered as keepers of natural wisdom or persecuted as disciples of the Devil. Today, the practice of witchcraft has never been more popular, whether in the guise of paganism, herbalism, Wicca or the occult.

The Pocket Book of Witches is a compact guide to the complex and compelling world of witchcraft. It will show you how to tame a familiar, master the power of flight, weave a nature charm, cast a love spell, and tap into the true potency of Halloween. Packed with the finest historical artwork, fascinating folklore and essential traditions, the book travels between cultures and continents to explore the origins, history, practices, powers and perceptions of witches. A little book brimful with a vast world of magic, this is an essential guide for every student of witchcraft.

Specifications

162 x 105mm / 4 x 6 1/2 in
160pp four colour throughout
60 images
20,000 words

About the Author

Joel Levy is a writer specialising in the intersection of history, science and the unexplained. He was the author and creative force behind the groundbreaking 2000 book, *Fabulous Creatures and Magical Beings*, described by one reviewer as the nearest thing to Harry Potter's biology text book; and has written on topics from Atlantis to Stephen Hawking. His published titles include *Gothic Science: The Era of Ingenuity* and the *Making of Frankenstein*; *Poison: A Social History*; and *Reality Ahead of Schedule: How Science Fiction Inspires Science Fact*.



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Chapter III

Magic Circles

One of the only perfect shapes in nature, and associated with the full moon and the sun, the circle has been a symbol of significance and power since the dawn of humanity. In magic it offers both protection and a space for spell casting. This is true in traditions through history and around the world, from ancient Mesopotamia to Sami shamanism to Buddhism (where, for example, the mandala is a sacred circular diagram of mystical significance).

In witchcraft the magic circle is used as a space of power, for spell casting, but also to protect against entities that might be drawn or summoned to such acts. Traditionally a circle would be traced with salt or chalk, but in fact any medium, real or symbolic, can be used. Modern ritual magic, such as Wicca or related systems, often uses a combination of physical markers, such as chalk and candles, and symbolic ones, such as a wand or ritual dagger (athame).

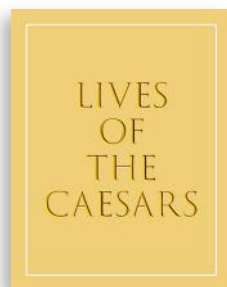
Within the circle symbols, patterns and letters may be drawn (such as a pentacle with points touching the edge of the circle), and typically the witch will 'call the quarters' by facing in each cardinal direction in turn to invoke the appropriate elements and spirits.

The circle contains but also excludes. This is especially important in black magic, where malign entities may

Practising Witchcraft



Above: *The Magic Circle*, 1886, by John William Waterhouse, shows a witch drawing a circle with a wand to enclose herself, a cauldron and flowers, excluding a barren landscape, ravens and a frog.



Lives of the Caesars

In *The Twelve Caesars*, Suetonius chronicled the lives of Rome's first emperors with scandalous detail and sharp insight, capturing the vices, virtues and vanities of men who wielded absolute power. In this bold new interpretation, David Potter reimagines the ancient biographies of Rome's most notorious rulers for a 21st Century audience. From Julius Caesar's calculated rise to power, to the marital scandals of Claudius, the private and public stories of each leader reveal the best and worst of Rome with sharp historical insight. Striking new artwork resurrects these characters into vivid life, revealing the dangerously human men beneath the titles. Lovers of historical drama will find this book as addictive as any modern saga of power and downfall, while scholars will gain a deeper understanding of one of the most colourful biographical works in history.

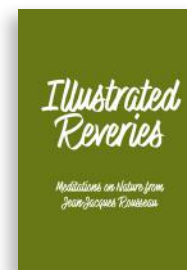
Specifications

230 x 180 mm (9 x 7 in)

256 pp four color throughout

48 illustrations

Estimated word count: 36,000



Illustrated Reveries

Meditations on Nature from Jean-Jacques Rousseau

In an age of noise and distraction, the timeless voice of Jean-Jacques Rousseau calls us back to the wild, to the woods, and to the soul-healing presence of nature. A philosopher, writer, and visionary of the Enlightenment, Rousseau believed that nature was not only a refuge, but the very foundation of human freedom and authenticity. *Illustrated Reveries* is a curated collection of his most profound reflections on the natural world – its beauty, its serenity, and its essential role in human life. Whether pondering the stillness of a forest, the innocence of a child at play, or the moral clarity found far from the corruption of society, Rousseau's words offer readers a path back to simplicity and truth. Introductions to each chapter explain their context and philosophy and, most significantly, a selection of 50 reveries are beautifully illuminated with thoughtful new artworks to bring them to life. Perfect for lovers of nature, philosophy, or quiet contemplation, this book invites you to slow down, look around, and walk beside one of philosophy's most soulful minds.

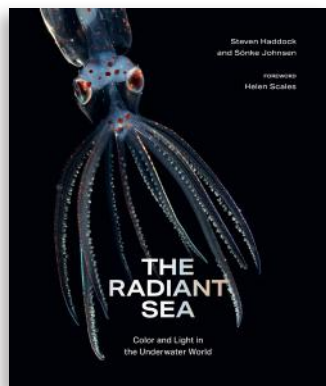
Specifications

195 x 135 mm (7 7/8 x 5 3/8 in)

192 pp four color throughout

64 illustrations

Estimated word count: 25,000



Specifications

305 x 255 mm (10 x 12 in)

224pp

Four colour throughout

100 images

30,000 words

The Radiant Sea

Color and Light in the Underwater World

Deep in the ocean a myriad of creatures including jellyfish, coral, shrimp, sharks, squid, lantern fish, angler fish, sea fireflies and fireworms use multi-colored lights for defense, to lure food, to attract mates and to communicate.

The Radiant Sea presents an exciting new perspective on the mysterious environment that accounts for 99 percent of the habitable space on Earth but remains hidden to the casual observer. Two of the world's leading researchers explore the nature of underwater light, investigating the varieties of transparency, pigmentation, iridescence, bioluminescence and fluorescence, and explaining the need for – and function of – tricks of the light among marine species. Each luminous wonder is conveyed through startling tales of natural science and captured by the finest underwater photography of nature's most memorable and meaningful light show.

About the Authors

Steven Haddock studies marine diversity, molecular biology, and bioluminescence at the Monterey Bay Aquarium Research Institute and the University of California, Santa Cruz. Documenting creatures in the deep sea and capturing their luminescent displays, many for the first time, he aims to increase an appreciation and understanding of the ocean's inhabitants. His imagery and research have been featured in *National Geographic*, the *New York Times*, and BBC documentaries.

Sönke Johnsen first trained in maths and art and has studied light in nature for 33 years, the last 22 of which have been at Duke University. He is particularly interested in vision, signaling, and camouflage in the open sea. His field work primarily involves open-ocean research cruises that use SCUBA, and deep-sea manned and robotic submersibles. Johnsen's research has been featured in the movie *Finding Nemo*, *The Magic Treehouse* book series, the poetry of John Updike, the humor of Dave Barry, and most recently in Ed Yong's book *An Immense World*.



The Oceanic Crust

The oceanic crust in some ways resembles a slice of cake, where the frosting is made of marine sediments and the layers below of pillow basalts, sheeted dikes and gabbro. Gabbro, the bottom of the sponge cake, marks the border between the ocean crust and the underlying mantle of the Earth.

The marine sediments consist of small particles that have trickled down through the water, eventually ending up at the bottom of the sea, where they are deposited. These layers of sediment can vary a lot in thickness, from a few centimeters to whole kilometers, mostly depending on the age of the crust. On average, the sediments cover about 500 meters. Below them comes the igneous crust, which is made up of magmatic and volcanic rocks. The igneous oceanic crust can be divided into three main parts: an upper section of permeable basalt, formed by submarine volcanism extruding lava onto the ocean floor, a middle layer of sheeted dikes which serve as lava conduits, and a deeper layer of gabbroic rock.

The total rock volume is 6 to 10 times the total volume of the marine sediments. The upper layer of the crust is often extensively fractured as a result of tension release or quick cooling of the crust. It is therefore very porous. Vesicles are also formed through pressure release during magma extrusion, and so sub-seafloor basalts contain whole systems of interconnected fractures and vesicles in which seawater can circulate. As the largest aquifer system on Earth, the oceanic crust is also the largest potential microbial habitat. Microorganisms can actively migrate or be passively transported through this system, wherever pore space and fluid flows permit.



10

The Underground Atlas of Fungi



The Atlas of Fungi

Exploring the Hidden World of Mycelia and Mushrooms

From Merlin Sheldrake's *Entangled Life* to Suzanne Simard's *Finding the Mother Tree*, books on fungi have been enjoying sustained international success for years.

The Underground Atlas of Fungi is the first book to focus on the vast, hidden, and mysterious fungal world beneath our feet. Looking at different landscapes all over the world, from forests and deserts to the sea and the poles, the atlas introduces and visualizes these fascinating networks, revealing how they work and their immense importance to the overground world that we inhabit.

Packed with beautiful, specially commissioned maps and graphics throughout, as well as stunning archival artwork, *The Underground Atlas of Fungi* is the ultimate guide to the secret circulatory systems at the heart of all of our planet's habitats.

Timeline

1980

In May 1980, the eruption of Mount St. Helens erupted.

1981

Lupinus seedlings established themselves in the ash, a prime source of food for the native northern pocket gopher.

1982

In 1982, researchers established a northern pocket gopher in the same place.

2014

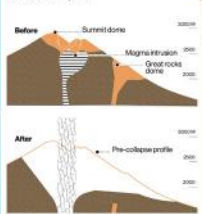
Over 40 years later in 2014, researchers collected soil samples to analyze the microbial diversity and chemistry of the gopher tunnels and soil, as well as the gopher's role in the recovery of the ecosystem.

Can gophers increase fungal diversity?

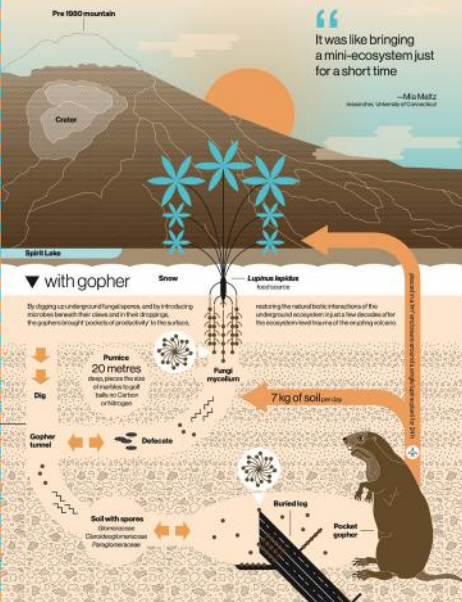
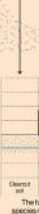
After the eruption of the Mount St. Helens volcano, researchers placed a pocket gopher in a 1 m² enclosure to burrow through the ash into the soil. Over 40 years later, they studied the soil to show how the ecosystem engineer gopher increases the diversity of mycorrhizal fungi, which in turn encourages the recovery of microorganisms, soil biota and plants.

▼ Ecosystem without gopher

► The 1980 eruption



Sterile soil



Specifications

264 x 206 mm (8 1/4 x 10 1/2 in)

224pp

Four colour throughout

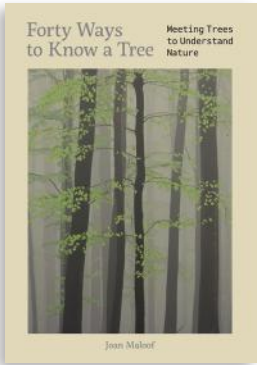
160 images

50,000 words

About the Authors

Editor: Donald Pfister, Professor of Botany at Harvard University and Emeritus Curator of the Farlow Library and Herbarium, USA. Professor Pfister's research centers on the biology and systematics of fungi; he also studies the history of collections and collectors. He leads the Pfister Lab at Harvard, which conducts research into fungal biology, particularly of fungi in the Pezizomycetes, the Orbiliomycetes, and recently the Laboulbeniomycetes. His research team are interested in the geographic distribution, relationships, and associations of these fungi with other organisms.

Contributing authors: Adriana Corrales, SPUN; **Daniela Soto Hernandez**, SPUN; **Katie Field**, University of Sheffield; **Magnus Ivarsson**, Swedish Museum of Natural History.



ALSO AVAILABLE



Specifications

215 x 148 mm (5 3/4 x 8 1/2 in)
192pp
Four colour throughout
100 images
35,000 words

Forty Ways to Know a Tree

Meeting Trees to Understand Nature

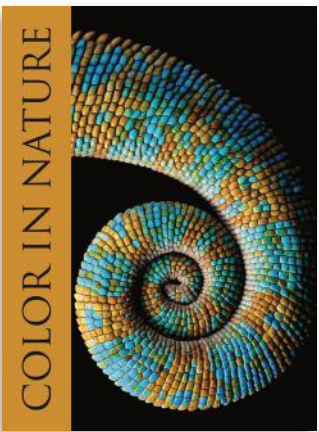
Trees are the living, breathing monitors and maintainers of Earth's health. There are an estimated 3 trillion in the world, half as many as there once were. Trees are the lungs of the planet, with a mature example absorbing over 20 kg of carbon dioxide every year. Their growth-rings chronicle drought, fire, and flood. Their roots form an underground ecosystem with mycorrhizal networks of fungi. Their trunks, branches, and canopies provide shelter and sustenance to an abundance of mammals, birds, and invertebrates. Their very presence bestows upon humans a sense of wellbeing.

Forty Ways to Know a Tree offers 40 distinct ways of encountering, exploring, and knowing a tree. You might know it by its birth, by its death, by its roots, by its rings, as a lone sentinel, or as part of an ancient woodland. Each meeting is illustrated with a particular species, and they combine to create a broader canvas of tree knowledge. Elegant writing turns tree science into storytelling, and beautiful photographs are scattered throughout.

About the Author

Joan Maloof is Professor Emeritus of Biology at Salisbury University, Maryland, and founder of the Old-Growth Forest Network, which is working to create a national network of protected old-growth woodlands.

Her work has been featured in *The New York Times* and *The Washington Post* and she is the recipient of prizes including the 2014 Mary Byrd Davis Award. She is the author of a number of published titles, including *Treepedia*, *Nature's Temples* (both Princeton University Press), and *The Living Forest* (Workman).



Color in Nature

Communication, Survival and Accidental Beauty

For us, color holds meaning. We give labels to hues and assign them emotions. A road sign's red edge or yellow background flags danger; a blue sky feels happy and full of possibility. Nature is full of color, but the secret to understanding why it's there and what it's for is knowing that it's not meant for us. Many creatures see more colors than we do, some add infrared hues, others ultraviolet ones, others still see polarized light. A praying mantis shrimp sees all three and then some. Color has evolved as a means of camouflage and communication; its purpose is almost never accidental, even though its beauty might be.

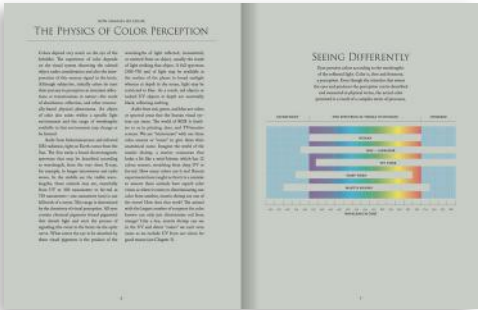
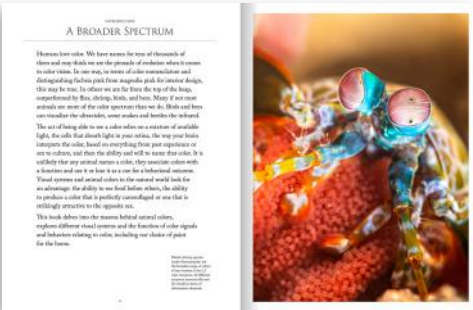
Color in Nature unlocks the natural world's colorful purpose, defining color and how creatures see it, explaining iridescence and bioluminescence, and the part color plays in sex, violence, and camouflage. Surprising science marries stunning imagery to offer a window into how color works for all life.

Specifications

246 x 190 mm (8 1/2 x 11 1/4 in)
288pp
Four colour throughout
150+ illustrations
50,000 words

About the Author

N. Justin Marshall is a Research Fellow at the Queensland Brain Institute, University of Queensland, Australia. He focuses on how animals perceive their surroundings, with a particular focus on the marine environment.



The Shark Watcher's Manual

A Guide to Species and Where to Find Them



Austin Gallagher

The Shark Watcher's Manual

A Guide to Species, and Where to See Them

The Shark Watcher's Manual provides the complete handbook for encountering and studying these soul-stirring creatures in the wild.

An introductory section provides a foundation in shark biology and behaviour, and a guide to diving and photography, myths and dangers, and conservation. An illustrated ID section reveals how to identify, understand, and encounter 24 species.

Finally, there is a directory to over 200 of the world's best shark-watching sites with information on species hotspots, times to travel, and conservation work. Written by a leading authority, this is everything the enthusiast needs to know about the wonder of shark species, and where to find them.

Specifications

234 x 156 mm (6 x 9 1/4 in)

288 pages

Four colour throughout

90 images

78,000 words

About the Author

Dr. Austin Gallagher is an award-winning marine biologist, explorer, author, and social entrepreneur, known internationally for his research on sharks. In 2020, he partnered with tiger sharks to make a major ocean discovery: the world's largest seagrass ecosystem, an area over 50,000 sq. miles in the Bahamas, representing the ocean's largest carbon sink. Dr. Gallagher is the founder and CEO of Beneath the Waves, a non-profit organization focusing on ocean conservation. He has served as lead scientist on over 50 scientific expeditions across six continents, and obtained broad expertise in large animal tracking, behavioral ecology, and animal physiology. As a wildlife presenter and host, Dr. Gallagher regularly appears on network TV and is a mainstay talent and producer for Discovery Channel's Shark Week. He holds an honorary adjunct professor position at the University of Exeter, UK, and his awards include Fulbright Distinguished Scholar, Forbes 30 Under 30, Blue Marine Foundation's 2023 Science Award, and *Scuba Diving Magazine's* "Sea Hero."



02

ENCOUNTERING SHARKS

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| 52 | DIVING WITH SHARKS |
| 62 | PHOTOGRAPHING SHARKS |
| 74 | SHARK SAFETY |

03 SPECIES IDENTIFICATION

TIGER SHARK

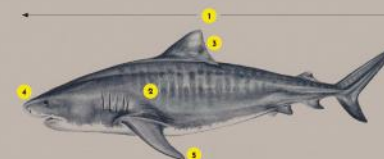
(GALEORCERDO CUVIER)

Order:
Carchariformes
Family:
Carcharidae

Due to its name, unique appearance, and perceived risk to humans, the tiger shark is one of the most recognizable large sharks in the ocean. Named for the distinctive lateral stripes found on its skin (the stripes are actually dots during the first few years of life, which stretch as they grow), this is the largest predatory shark found in tropical waters, reaching lengths of 15 or 16 feet (4.5-5 m), although the largest recorded specimen was a staggering 23 feet (7 m). The tiger shark is the ultimate generalist shark species, meaning it can be found in a wide range of water temperatures (although it is most common in warmer subtropical and tropical latitudes worldwide) and that it exhibits a wide range of behaviors and dietary preferences. Its very broad diet, which is comprised of fish, other sharks, reptiles, birds, and mammals, is famously known to include the consumption of non-organic items too, such as license plates, potato chip bags, and tires, to name just a few.

Tiger sharks are top predators in virtually all ecosystems where they are found, which include shallow seagrass meadows, fringing coral reefs, and deep-water regions around islands and continental shelves. Once thought to be primarily a coastal species, tagging and tracking studies undertaken over the last twenty years have revealed that tiger sharks can be highly migratory, alternating a seasonal use of shallow inshore waters with extended periods offshore in the open ocean. Tiger sharks are relatively slow and cautious, but they can rapidly switch their behavior to ambush prey species.

Tiger sharks are commonly encountered by humans throughout their range. They have been implicated in attacks on people, which can sometimes be deadly, but despite their size and predatory nature, diving with tiger sharks is not overly dangerous as long as careful attention is paid to their behavior in real time.



IDENTIFICATION

- 1. Maximum size:** 16 feet (5 m), although larger specimens have been recorded.
- 2. Coloration:** Light gray on top and sides, with distinctive stripes from the pectoral fins to the caudal fin, white underneath, which can be mottled with unique gray patterning of the edges.
- 3. Dorsal fin:** First dorsal is large but relatively small in relation to body size, with a rounded top and posterior edges.
- 4. Snout:** Rounded and broad in relation to body size.
- 5. Pectoral fins:** Relatively small in relation to body size.

Reproduction: Oviparous; 4-10 eggs per litter, which give inside egg sacs but are born live. Diet: Highly varied, including fish, other sharks, reptiles (such as sea turtles), birds, and mammals.

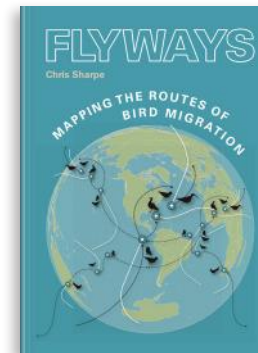
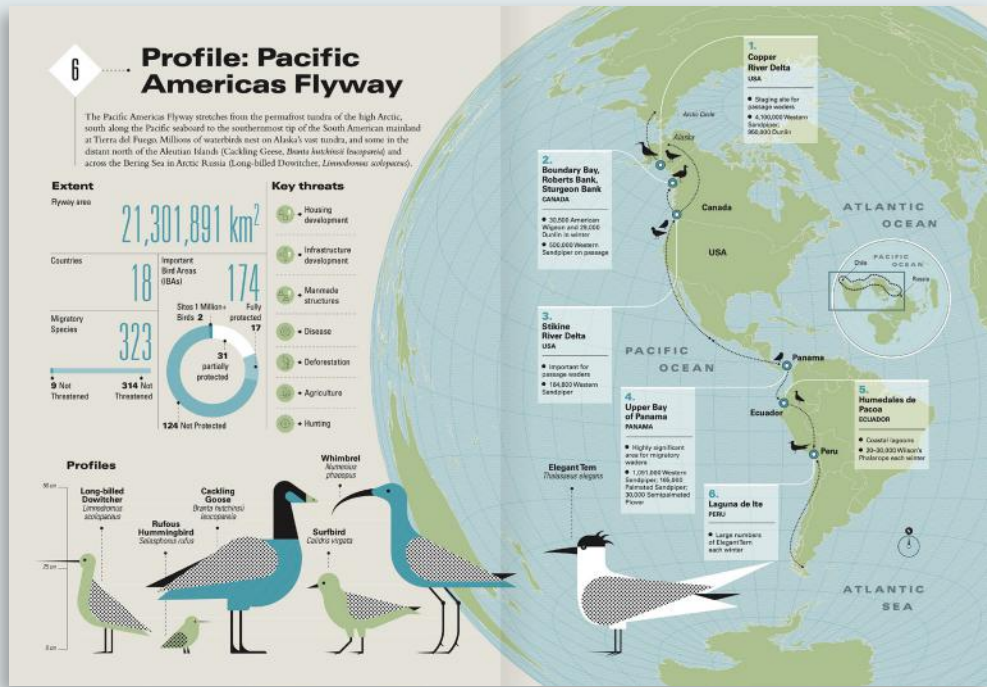


DISTRIBUTION

Found globally in tropical and subtropical waters, and in all oceans except polar seas. Range is wide, stretching from Brazil to Massachusetts in the USA (Atlantic), from South Africa to the Red Sea, and throughout Australia and Indonesia. Juvenile and subadult sharks utilize shallow inshore habitats as nursery areas, expanding their range to offshore areas as they reach larger sizes and maturity.

HOTSPOTS

Bahamas: Grand Bahama, Nassau
USA: Florida, Texas, Hawaii
Australia: Ningaloo Reef, New South Wales, Great Barrier Reef
South Africa: Abaco Shoal, Durban



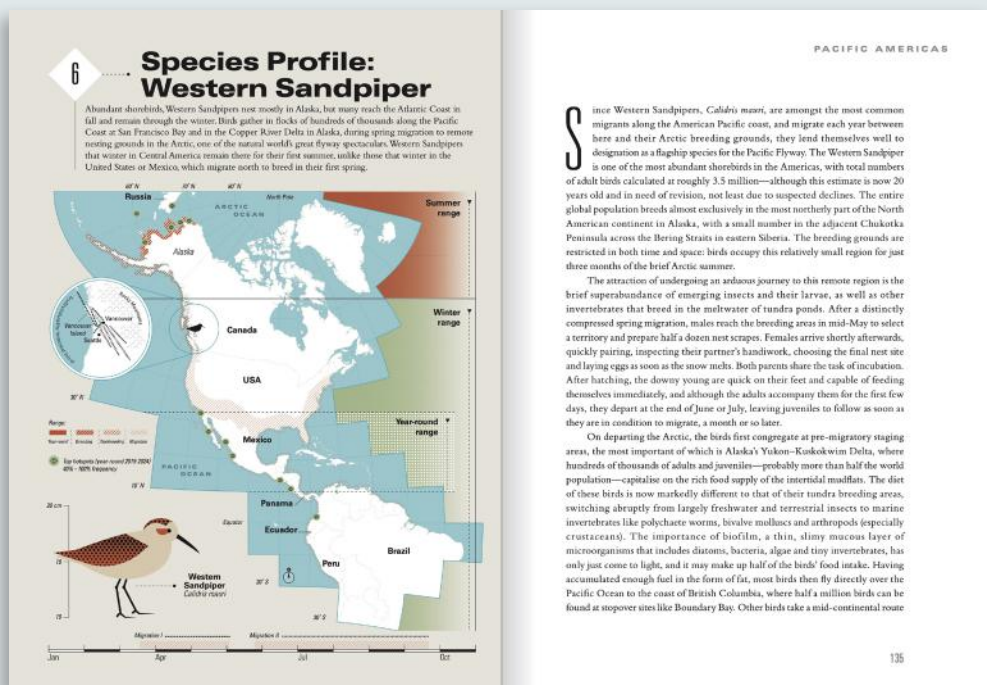
Flyways

Mapping the Routes of Bird Migration

The remarkable story of bird migration has been told many times. But the story is changing. Birds travel to suitable habitats according to the seasons, and as the world's climate heats, those seasons and those habitats are no longer static. The triggers that prompt birds to migrate are occurring at different times.

The pattern of bird migrations is evolving accordingly, while at the same time becoming itself an indicator of climate change.

Flyways tells this new story by exploring the eight avian superhighways along which different species migrate, and which are the focus of international conservation projects. Each flyway is introduced through an illustrated map tracing the route and annotated with the facts and figures of its seasonal migrations. This leads into the migration stories of key species flying that skyway, including those demonstrating recent changes to their migration patterns, those that divide to follow separate routes, and those showing adaptations to such external factors as reintroduced predators.



Specifications

228 x 165 mm (6 1/2 x 9 in)

256pp

Four colour throughout

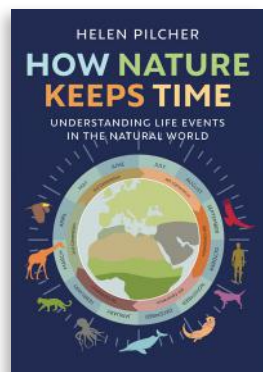
100 illustrations

50,000 words

About the Author

Chris Sharpe has worked on the conservation of neotropical birds for over 35 years, living in Peru, Nicaragua and Venezuela. He carries out threatened species assessments, bird surveys and rapid biodiversity inventories in Latin America and Europe, and has advised governments on the implementation of the UN Convention of Biological Diversity. Chris has led bird tours throughout the Americas, Europe and Antarctica. He has been editor of publications including the Lynx and BirdLife International Field Guides series and Birds of the World at the Cornell Lab of Ornithology; and co-authored five field guides and a monograph on hummingbirds for Princeton.

Matteo Riva is a multidisciplinary graphic designer and illustrator from Italy. He works as designer for magazines, newspapers, agencies, and studios, and as art director/visual journalist at VITA (the Italian Third sector magazine). He currently is a professor of information design at Politecnico di Torino (Turin), and has previously taught illustration and visual design as professor at IED (Turin), visual journalism at Università LUMSA (Rome) and data visualization at IULM Milano (Milan).



How Nature Keeps Time

Understanding Life Events in the Natural World

Which organisms live the longest? How does the natural world recover from fire? How long do eggs take to hatch? What are the world's fastest- and slowest-growing plants? Which species invest the most in parental care?

The graphic number line is a remarkably powerful pattern that explains much of our world, and throughout *How Nature Keeps Time* it visually maps the amounts of time bounded by growth, distance, age, reproduction, sleep, death, and other key behaviours. As the natural world draws our attention to its plight, this fascinating book offers a calm, clear-thinking series of visual graphic explanations based around the ultimate objective measure – time.

Specifications

234 x 156 mm (6 1/4 x 9 1/4 in)

208pp

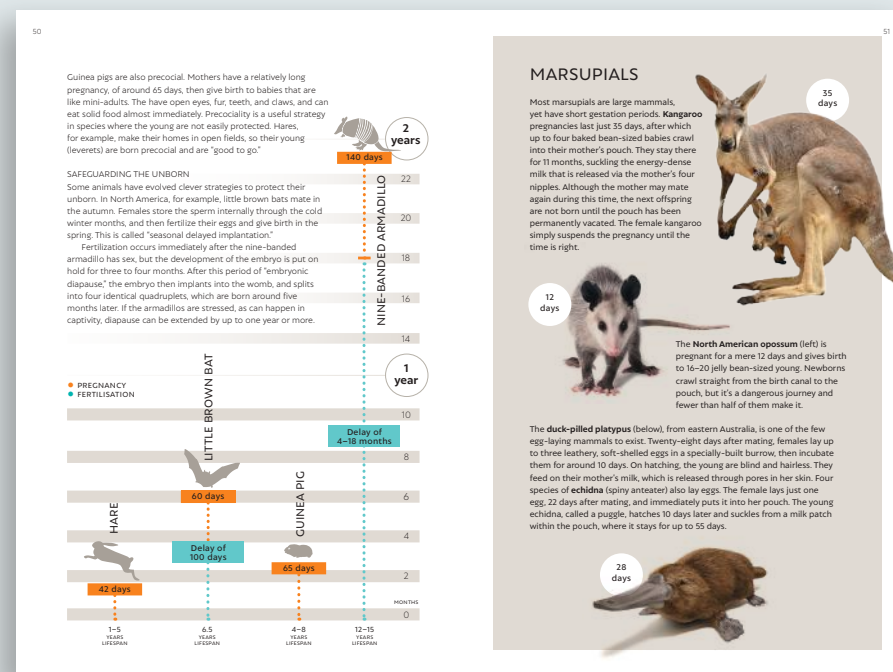
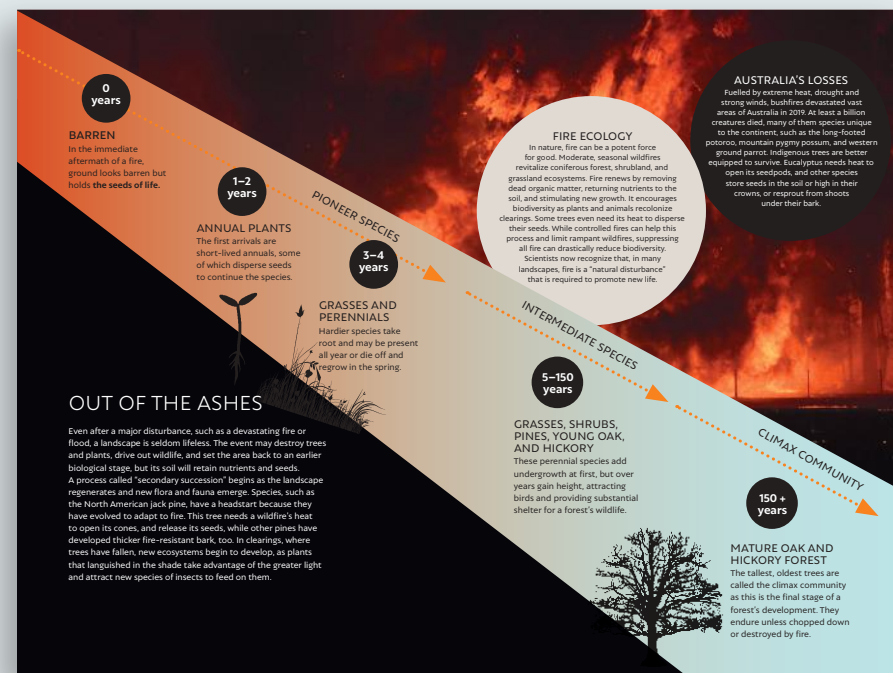
Four colour throughout

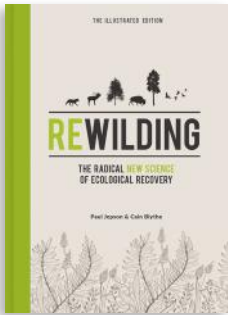
80 infographics

35,000 words

About the Author

Helen Pilcher is a science writer, presenter, and performer based in the UK. She has written for *Nature*, *The Guardian*, *BBC Science Focus*, and the *New Scientist*. She has a PhD in Cell Biology from the London Institute of Psychiatry and ran the Royal Society's Science in Society Programme before becoming a full-time writer. Her previous books include *Bring Back the King: The New Science of De-extinction*, *Mind Maps: Biology*, and *The Pocket Book of Backyard Experiments*.





Rewilding

The Radical New Science of Ecological Recovery

With its sense of hope and purpose, rewilding is breathing new life into the conservation movement, blending radical scientific insights with practical innovations to revive essential ecological processes.

Rewilding reveals the ways in which ecologists are restoring the lost interactions between animals, plants, and natural disturbances that are the essence of thriving ecosystems. It looks into a past in which industrialisation and globalisation have downgraded our grasslands; a present that projects restoring plants and animals to their natural, untamed state; and into the future, with 10 predictions for a rewilded planet.

This illustrated edition combines beautiful natural history images with infographic flow-charts depicting the “trophic cascades” of biodiverse ecosystems, to explore a brave new world repopulated with wild horses and cattle, beavers, rhinos, and wolves.

About the Authors

Paul Jepson is Nature Recovery Lead with Ecosulis Ltd. in the UK and was until recently a director of Oxford University's MSc course in Biodiversity, Conservation, and Management.

Cain Blythe is Managing Director of Ecosulis Ltd. and specializes in habitat restoration, particularly through the adoption of natural regeneration techniques, nature recovery, and the use of technology in conservation.

Specifications

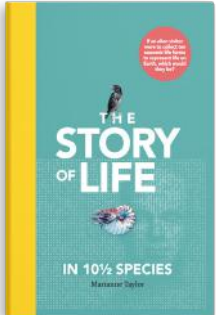
228 x 165 mm (6 ½ x 9 in)

224pp

Four colour throughout

110 illustrations

50,000 words



The Story of Life

in 10½ Species

The 10½ life forms in this book each explain a key aspect about how marine animals live their lives.

From the deepest, darkest oceanic trenches to coral reefs ablaze with life, the chapters explore the world's undersea habitats through their iconic living species.

Follow the journey of the sockeye salmon, explore the multilayered world of the bottlenose dolphin, and unpick the strands of the food web founded on Antarctic krill. The ocellaris clownfish illustrates the life cycle of individuals, and the argonaut the life and death of ocean life in its entirety. Finally, the Leach's storm petrel serves as our bridge between the other world-within-our-world through its unbreakable link to the land.

About the Author

Marianne Taylor has authored more than 30 books on natural history including *The Animal Mind* and *The Pocket Book of Bird Anatomy*. She has recently completed *The Gull Next Door* and has written a number of guides for the RSPB. Her interest in marine life goes back to her childhood, growing up in an English coastal town, where she spent as much time as possible in the sea, if not beside it. She has since become fascinated by the science that is changing the way we understand the family ties of all life on Earth.

Specifications

228 x 165 mm (6 ½ x 9 in)

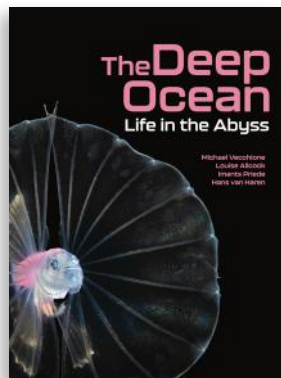
256pp

Four colour throughout

150 illustrations

55,000 words





The Deep Ocean

Life in the Abyss

The deep sea makes up over 90 percent of the space on our planet where life exists. Our biosphere is mostly abyss. These cold, dark ecosystems beyond 200 meters in depth are dominated by enormous pressures, limited food, and slow currents. Canyons and cliff edges lead down to hadal trenches, chimneys, and chemical seeps. Life and how it behaves down here is remarkable and unexpected, and technology is revealing it at a surprising rate.

Specifications

280 x 215 mm (8 ½ x 11 ¼ in)
288pp
Four colour throughout
200 illustrations
80,000 words

About the Authors

Michael Vecchione works for the NOAA as Adjunct Zoologist at the National Museum of Natural History, and Curator of Cephalopoda and Pteropoda at the Smithsonian. **Louise Allcock** is Professor of Natural Sciences at NUI Galway, Ireland. She is President of the Cephalopod Advisory Council and Editor of the *Zoological Journal* of the Linnean Society. **Imants Priede** is Professor Emeritus at the University of Aberdeen, UK. **Hans Van Haren** is Senior Scientist for NIOZ; an experimental physicist and physical oceanographer, he studies all aspects of turbulence in seas and oceans.



How Birds Live Together

Colonies and Communities in the Avian World

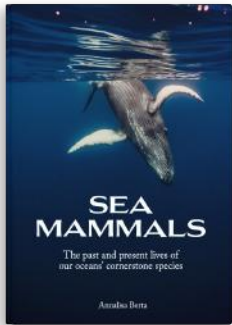
Some bird species don't take the isolationist approach to nesting and establishing a territory. If the right place to nest is not where food is found, the result is a breeding colony – families setting up home close together, and commuting far away to reach feeding grounds. Visiting these dynamic and deafening avian conurbations can put us in mind of our own towns and cities. The citizens live shoulder to shoulder but still fiercely defend their own small circle of space against neighbourly intrusion. Disputes, rivalry, jealousy, and deception are commonplace, but when danger from the outside threatens any individual, the whole community rises together to meet the threat. This book explores the form and function of bird societies around the world, from tropical forest to isolated island, and even on the rooftops of our own cities.

Specifications

228 x 165 mm (6 ½ x 9 in)
224pp
Four colour throughout
150 illustrations
50,000 words

About the Author

Marianne Taylor has authored more than 30 books on natural history including *The Way of the Hare*, *The Story of Life in 10 Species*, and *The Pocket Book of Bird Anatomy*. She has recently completed *The Gull Next Door* and has written a number of guides for the RSPB. Her interest in marine life goes back to her childhood, growing up in an English coastal town, where she spent as much time as possible in the sea, if not beside it. She has since become fascinated by the science that is changing the way we understand the family ties of all life on Earth.



Sea Mammals

The Past and Present Lives of Our Oceans' Cornerstone Species

From the gregarious sea otter and playful dolphin to the sociable narwhal and iconic polar bear, marine mammals are a large, diverse, and increasingly precious group.

For the first time, these remarkable animals from past and present are gathered together, offering a detailed account of their evolutionary path, anatomy, cognition, life habits, and conservation. These key species complete many food chains and have the widest influence of all marine life.

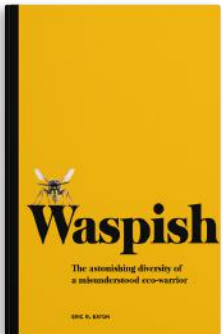
Sea Mammals offers real insight into a broad variety of marine worlds. Individual species profiles, themed chapters, photographs, and illustrations combine to accurately portray both living species and their ancient predecessors. Internationally respected paleoartist Robert Nicholls contributes bespoke paleo-illustrations, which bring long-extinct sea mammals to life.

Specifications

228 x 165 mm (6 1/2 x 9 in)
224pp
Four colour throughout
150 illustrations
50,000 words

About the Author

Annalisa Berta is Professor Emerita in the Department of Biology at San Diego State University, USA, where she has worked for more than 30 years. Specialising in the anatomy and evolutionary biology of marine mammals, especially baleen whales, Annalisa formally described the early pinniped *Enerliactos*. She served as President of the Society of Vertebrate Paleontology from 2004 to 2006 and was elected a Fellow of the American Association for the Advancement of Science in 2015.



Waspish

The Astonishing Diversity of a Misunderstood Eco-warrior

Like the lions of the insect world, wasps are the tiny (and not so tiny) apex predators that top the insect food chain. Essential in turn to those food chains of our own, wasps are vital heroes of our natural and agricultural ecosystems.

There are well over 100,000 species of wasps, and all use myriad, ingenious methods of survival; most are solitary, even venomless. From the microscopic fairyflies to the giant tarantula hawks, they work as bio-controls of agricultural pests, are arch pollinators, and amongst the most complex of insects. Full of enthusiastic, accessible description working alongside illuminating visuals, *Waspish* uncovers the behaviors of these strange and diverse creatures, highlighting a wide range of fascinating scientific concepts en route.

Specifications

234 x 156 mm (6 3/8 x 9 1/4 in)
256pp
Four colour throughout
300 illustrations
63,000 words

About the Author

Eric R. Eaton is a nonfiction writer, editor, and consultant who has worked as an entomologist for the Cincinnati Zoo and Botanical Garden, Tucson Botanical Gardens, and with the Smithsonian Institution, University of Massachusetts (Amherst), West Virginia Division of Natural Resources, and the Yard Futures project. Eaton was lead author of the *Kaufman Field Guide to Insects of North America* and co-author of *Insects Did It First*.





ALSO AVAILABLE



Specifications

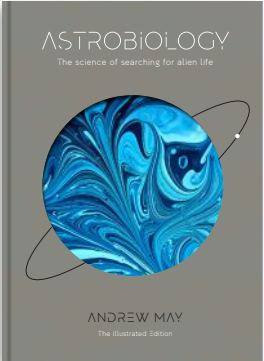
215 x 148 mm (5 ¼ x 8 ½ in)
192pp
Four colour throughout
75 illustrations
45,000 words

Forty Ways to Know a Star
Using Stars to Understand Astronomy

Understanding the birth, life, and death of stars is key to a knowledge of astronomy. Stars are the building blocks of galaxies, and the age, location, and composition of stars explain the evolution and dynamics of the galaxy they exist within. Astoundingly, there are 4,000 million stars in our galaxy and there are 2 million, million galaxies in our visible universe. Stars are simply luminous spheres of plasma held together by gravity, but there are many kinds and many remarkable examples. *Forty Ways to Know a Star* offers distinct, factual approaches to explaining what a star is, each one illustrated with a bespoke graphic. Elegant writing, supported by beautiful photographic imagery of the heavens, makes the sometimes-complex physics accessible.

About the Author

Jillian Scudder is an astrophysicist and Assistant Professor of Physics at Oberlin College, Ohio. She has been writing about astronomy for a general audience since 2013, and her work has been published in *Forbes*, *Quartz*, *Medium*, and *The Conversation*. Her published books include *Astroquizzical* (MIT Press, 2022) and *The Milky Way Smells of Rum and Raspberries* (Icon Books, 2022). Jillian is also the host and writer of the popular *Astroquizzical* blog, in which she tackles some of the mysteries of the universe by answering space-related questions submitted by her followers.



Specifications

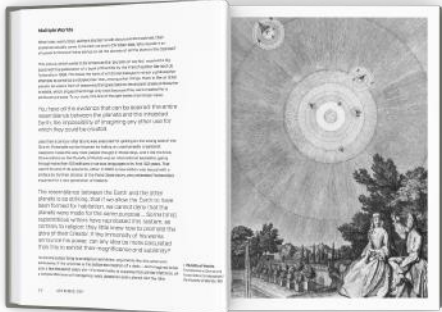
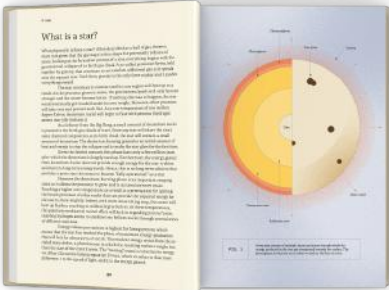
228 x 165 mm (6 ½ x 9 in)
224pp
Four colour throughout
100 illustrations
43,000 words

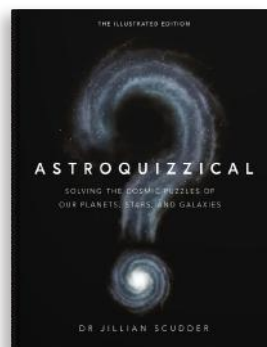
Astrobiology
The Science of Searching for Alien Life

The possibility that alien life exists in the universe is among the most profound of human conjectures, which today is being investigated not just by science-fiction writers but by scientists. *Astrobiology* presents an expert guide to this compelling field of science. It shows how the tell-tale signatures of life on Earth might hold the key to detecting life beyond our planet; explores the many planets beyond our solar system discovered by NASA's Kepler and TESS missions; and explains alien-hunting touchstones such as Fermi's Paradox, the Drake Equation, and the "Wow" signal. As NASA's rovers burrow into Mars and its probes peer ever farther into the cosmos, this illustrated edition combines deep-space images with infographics to cast a scientific eye over the most significant of scientific treasure hunts.

About the Author

Andrew May enjoyed a 30-year career as a professional scientist working in academia, the civil service, and private industry before becoming a science consultant and writer. He gained an MA in Natural Sciences at Trinity College, Cambridge, UK, and a PhD in Theoretical Astrophysics at Manchester University, UK, before conducting postdoctoral research at Wolfson College, Oxford, UK, and at the University of Groningen, the Netherlands (where he worked with Seth Shostak, now of the SETI Institute). Andrew writes about the physical sciences as well as the scientific study of unexplained and paranormal phenomena, and his published titles include *Destination Mars* and *Cosmic Impact*.





Astroquizzical The Illustrated Edition

Solving the Cosmic Puzzles of
our Planets, Stars, and Galaxies

Looking up at the night sky, it is almost impossible to imagine that we can trace our common ancestry with the distant stars and galaxies back over 13.8 billion years.

Astroquizzical explores this connection by traveling back through the generations of the cosmic family tree, from Earth (parent) to the stars (grandparents), galaxies (great-grandparents), and the first atoms of the Big Bang (great-great-grandparents). On the journey, the reader is invited to become “astroquizzical” by asking the questions and investigating the many scientific mysteries of how the universe was formed and how it works.

This updated and illustrated edition combines beautifully curated space images with 10 sketchbook “thought experiments” to create a uniquely accessible guide to the science of Earth’s place among the planets, stars, and galaxies.

About the Author

Jillian Scudder is an astrophysicist and Assistant Professor of Physics at Oberlin College, Ohio, USA, where she has worked with the Sloan Digital Sky Survey and the Herschel Space Observatory to understand more distant galaxies. She hosts and writes the popular *Astroquizzical* blog, in which she tackles some of the mysteries of the universe by answering space-related questions from the public. Jillian gained a BA in Physics with Astronomy Emphasis from Macalester College, St. Paul, USA, and a PhD in Astrophysics from the University of Victoria, Canada.

Specifications

246 x 190 mm (7 ½ x 9 ¼ in)
224pp
Four colour throughout
100 illustrations
70,000 words



Specifications

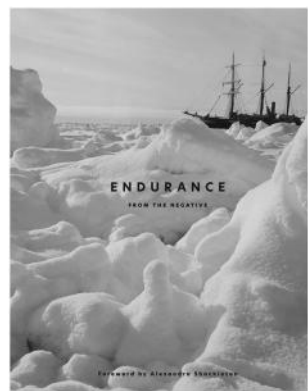
234 x 156 mm (6 ¼ x 9 ¼ in)
224pp
Four colour throughout
160 illustrations
45,000 words

Ten Patterns That Explain the Universe

Our universe might appear chaotic, but deep down it’s simply a myriad of rules working independently to create patterns of action, force, and consequence. *Ten Patterns That Explain the Universe* offers a key selection of repeated behaviours to explore the forces that make up the very fabric of our world. From diagrams to show the deep relationships between space and time to the quantum behaviours that rule how matter and light interact, these patterns stake out an overview of our physical world and how it works at a fundamental level.

About the Author

Brian Clegg is a renowned popular science writer who specializes in making the exotic aspects of physics approachable, informative, and entertaining for a broad readership. He has a degree in Natural Sciences from Cambridge and a Masters in Operational Research (OR) – mathematical problem solving – from Lancaster. Brian is a Fellow of the Royal Society of Arts, and his published titles include *A Brief History of Infinity* and *Dice World* (both longlisted for the Royal Society Prize); and *Everyday Chaos* and *Ten Patterns That Explain the Universe* (both MIT Press).



Endurance

From the Negative

On 5 March 2022, exactly 100 years after Sir Ernest Shackleton's death, the wreck of the *Endurance* was located at the bottom of the Weddell Sea. Images of the remarkably preserved ship stirred new interest in one of the great historic tales of heroism, and the story of the discovery is celebrated in the 2024 Disney+ documentary *Endurance*.

This definitive collection showcases the official visual record of *Endurance* in a lavish large format, using digitally mastered prints made direct from the negatives. These are shown alongside the original glass and celluloid plates, taken and rescued by Frank Hurley – the expedition's official photographer – which capture the reality of a two-year fight for survival. The extraordinary images can now be viewed at full definition, revealing previously unseen details. They are accompanied by a portfolio of essays written by leading experts to shed fresh light on the fate of *Endurance*, plus a collectible catalogue raisonné of all 280 of Hurley's photographic masterpieces.

Specifications

345 x 270mm / 10½ x 13½ in
128pp, four colour throughout
50 full-page or double-page
photographs
Approx. 230 thumbnail images
8,500 words

About the Author

The Royal Geographical Society is commissioning authors from a shortlist including: Alexandra Shackleton, Nicholas Crane, Mensun Bound, Jane Elizabeth Francis, Frans Lanting.





Specifications

210 x 255 mm (10 x 8 1/4 in) (landscape)

192pp

Four colour throughout

100 illustrations

25,000 words

Everest 24

New Views on the 1924 Mount Everest Expedition

In 1924, the second British Mount Everest Expedition set out to make the first ascent of the world's highest peak. In 2024, television documentaries and touring exhibitions – sponsored, like the original climb, by the Royal Geographical Society – will commemorate the 100th anniversary of this endeavour.

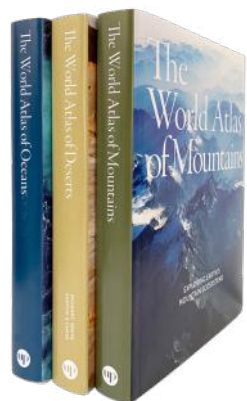
Everest 24, published with the RGS, presents a newly curated collection of images from the official archive, combining prints made direct from John Noel's coloured lantern slides and film stills; retouched and rare black-and-white photographs; artifacts discovered with George Mallory's body in 1999; exquisite maps; and the original expedition reports, records, and correspondence.

About the Authors

Norbu Tenzing, Vice President of the American Himalayan Foundation and son of Tenzing Norgay Sherpa. **Eugene Rae**, Principal Librarian at the RGS.

Dr. Jonathon Westaway, Senior Research Fellow at the University of Lancaster. **Dr. Katherine Parker**, Cartographic Collections Manager at the RGS. **Professor Felix Driver**, historical geographer at Royal Holloway University, London, specializing in collections-based research. **Dr. Jan Faull**, advisor for the RGS's *Everest Through the Lens* exhibition. **Peter H. Hansen**, Professor of History at Worcester Polytechnic Institute.





The World Atlas of...

SERIES

This groundbreaking series delves into the diverse landscapes of our planet, offering an unparalleled exploration of Earth's natural wonders. Covering everything from vast deserts and towering mountains to forests, rivers, and deltas, these titles uncover the breathtaking beauty and complexity of the world's geography.

Richly illustrated throughout with captivating maps, detailed graphics and stunning photography, every book is a veritable visual feast. The large format brings the content to life, making the wealth of information accessible, engaging, and visually striking. Authored by a respected team of experts, the *World Atlas* series offers a fresh and insightful perspective on our planet's most remarkable features.

This is Earth as you've never seen it before.

Specifications

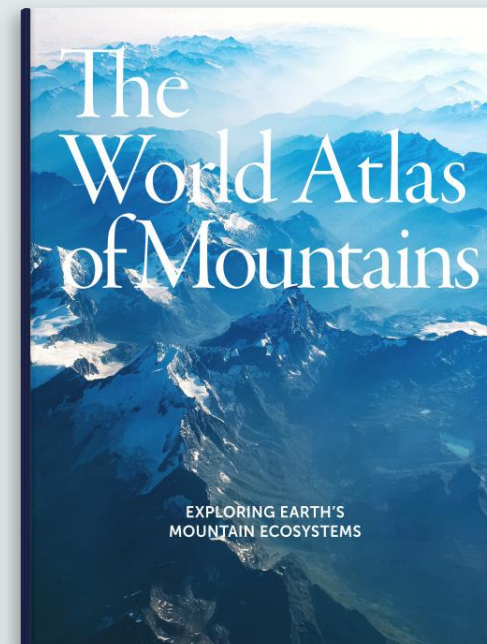
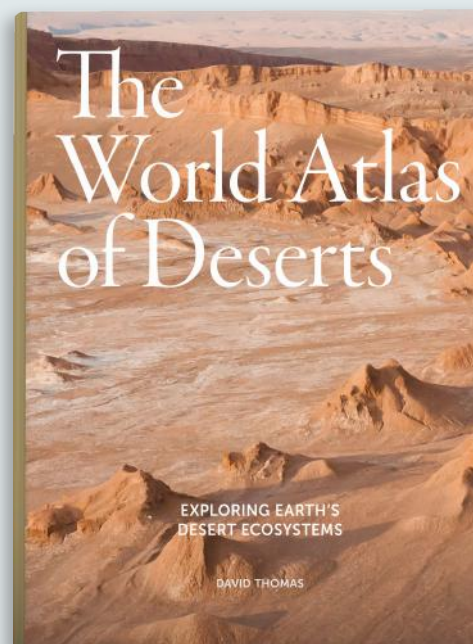
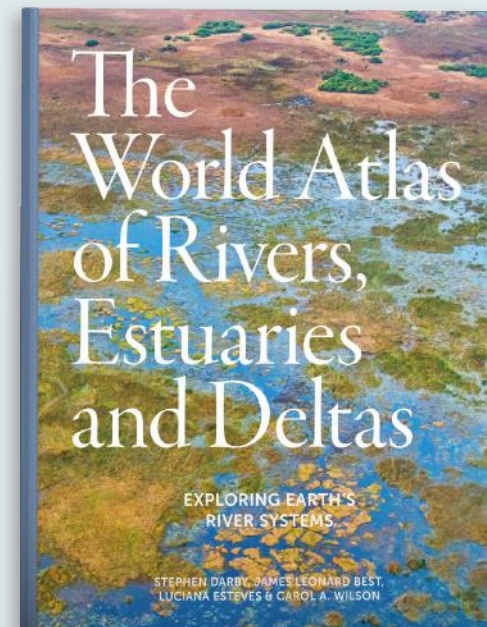
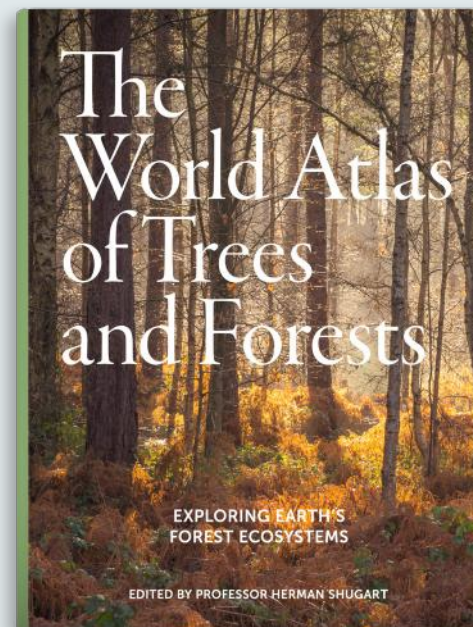
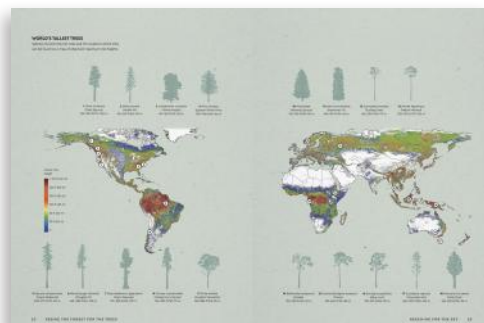
305 x 229 mm (9 x 12 in)

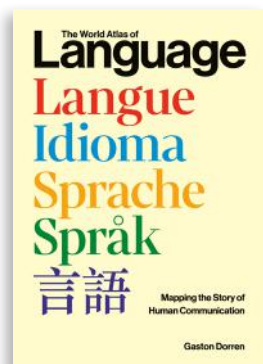
400pp

Four colour throughout

250 illustrations

80,000 words





The World Atlas of Language

Mapping the story of human communication

Did you know that while more than 7,000 languages are spoken today, 95 percent of the world's population uses only 15 of these? Or that there are several hundred different kinds of sign language? Or that the sound a cat makes is substantially different in French compared to in Thai?

The *World Atlas of Language* is a captivating journey through the rich tapestry of human communication. The book offers an unparalleled exploration of the world's languages, tracing their origins, evolutions, and the cultures they embody. From Old, Middle and Modern English and the great linguistic variety of the Americas, to African lingua francas and the rare and endangered tongues now spoken by only a handful of people, the atlas delves deep into the heart of human interchange.

Featuring a wealth of beautiful and fascinating maps, *The World Atlas of Language* not only charts the geographical spread of various dialects and vernaculars, but also celebrates the stories behind them. A must-have for anyone with a love for human culture and expression, the atlas will inspire you to see the world through the lens of language.

Specifications

254 x 178 mm (10 x 7 in)

288pp

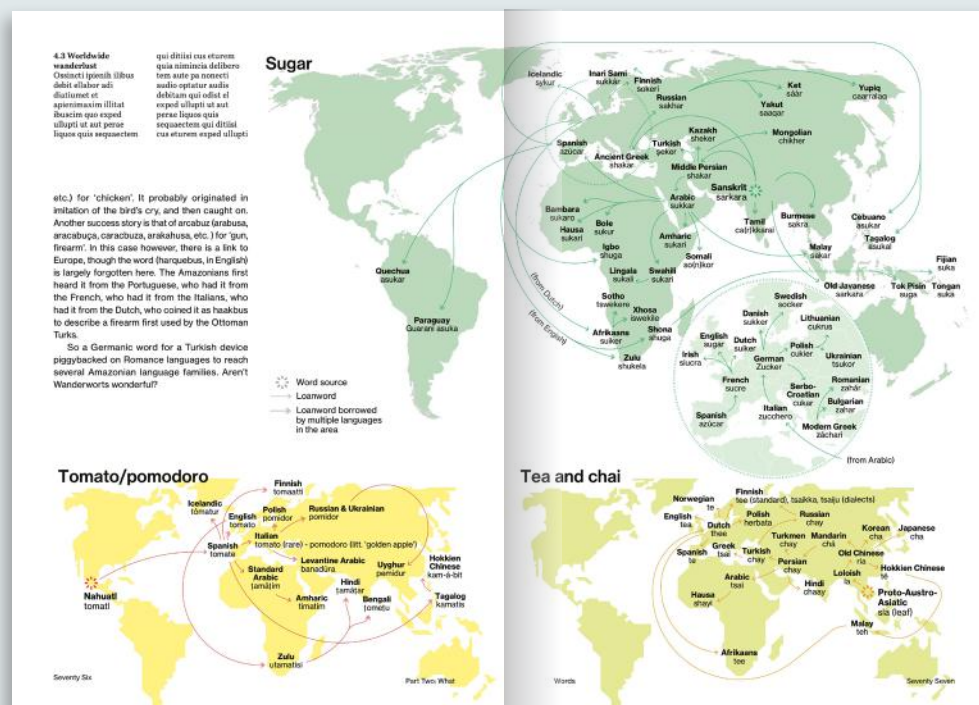
100+ images

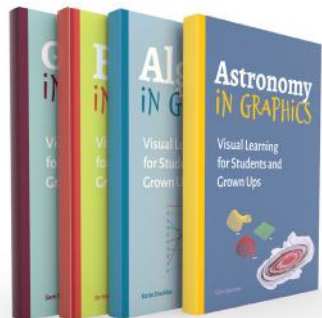
55,000 words

About the Author

Gaston Dorren is a bestselling author and public speaker from the Netherlands. His love affair with linguistics began in the 1990s, when he penned his critically acclaimed *New Tongues*, about the languages of migrants in the Netherlands and Flanders. He has since written five further books, including international bestsellers *Lingo* (2012) and *Babel* (2018), which have been published in 12 different languages, and the 2022 Dutch bestseller *Seven Languages in Seven Days*. He also wrote the international edition of Joshua Blackburn's board game *League of the Lexicon*. Gaston speaks a handful of languages and reads several more.

While his mother tongue is Dutch, he now mostly writes in English. Besides languages and linguistics, he loves history, science, maps, Dutch-language lyrics, English-language fiction, and traveling by train and bicycle.





In Graphics

SERIES

The *In Graphics* series offers an innovative approach to learning, combining stunning visuals with concise, expertly crafted explanations across a wide range of science, technology, and humanities topics. Each book in the series features meticulously designed infographics that bring complex ideas to life, making even the most challenging subjects accessible and engaging. Whether you're a teenager seeking an enriching study aid or an adult looking for a clear refresher, *In Graphics* makes learning not just informative but enjoyable.

Perfect for visual learners and those who thrive on clarity, these books break down key concepts with precision and style. With titles such as *Human Anatomy*, *Physics*, *Biology*, *Chemistry*, and *Geometry*, the *In Graphics* series is an essential resource for anyone looking to deepen their understanding or enhance their educational journey. Dive into a world where knowledge is beautifully illustrated and concepts are effortlessly explained.

Specifications

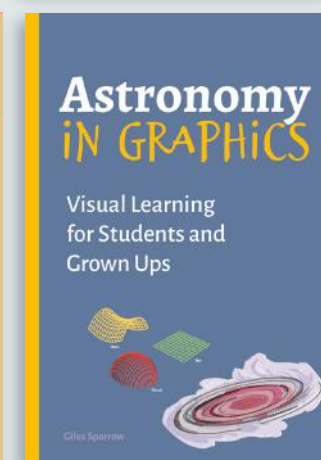
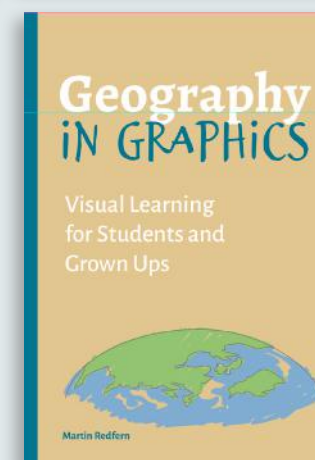
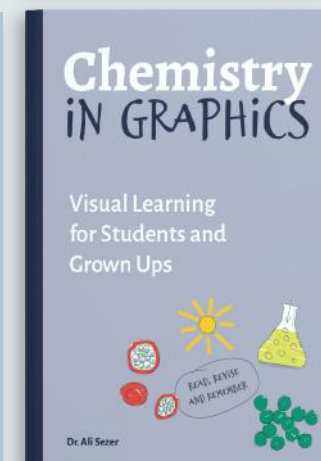
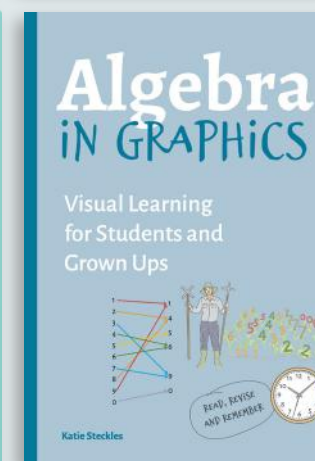
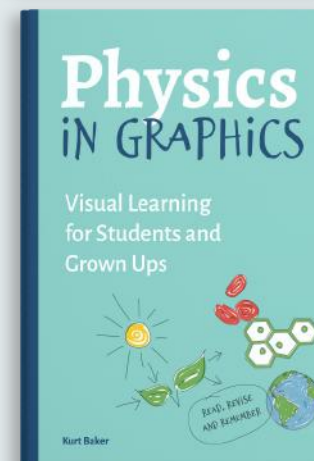
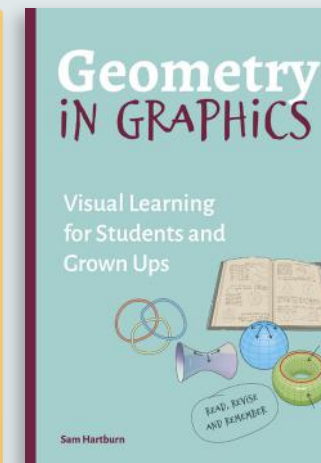
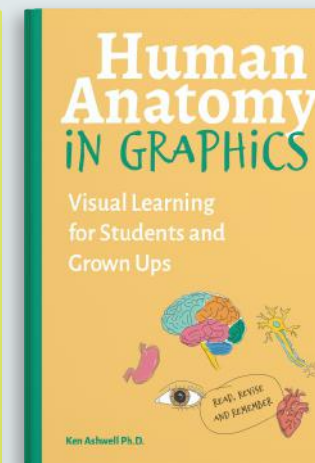
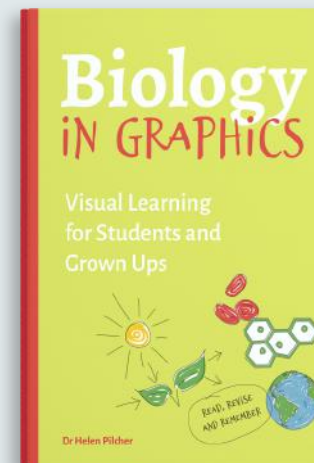
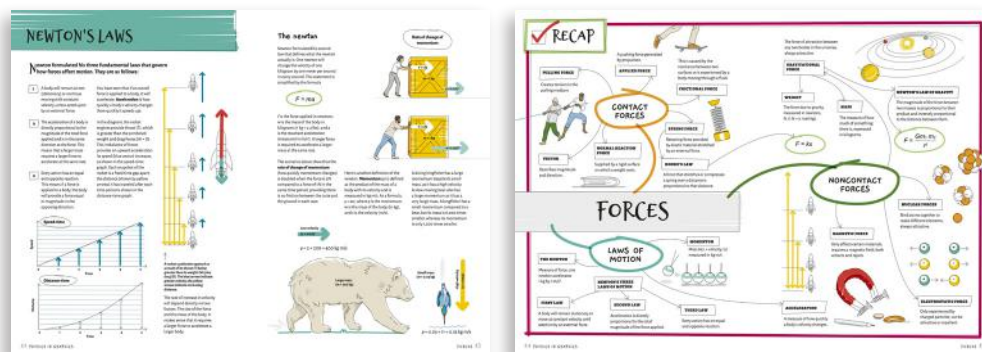
260 x 180 mm (7 x 10 ¼ in)

192pp

Four colour throughout

430 illustrations

40,000 words





Navigating

Find Your Way Through Big Ideas

SERIES

The new *Navigating* series provides a road map to help the general reader arrive at an understanding of complex scientific and philosophical theories while enjoying different aspects of the journey. Each topic is heralded by an attention-grabbing question and explained via three routes: the direct short cut, the longer deviation and the visual graphic.

Covering a range of subjects from biodiversity, maths and medicine through quantum physics, artificial intelligence and the brain, this eye-catching new series demystifies difficult concepts while acknowledging their complexity. Every title is written by a leading academic who is well-versed in communicating the intricacies of their specialist subject with clarity, insight and a degree of humour. The graphic visualisation of key concepts makes them easily accessible: each chapter is introduced by a glossary of terms in the form of a route map to set the reader on the right path to finding individual topics of interest to which they can return time and again.

Classic academic rigour designed with contemporary flair singles out this new series as a benchmark on which to build a modern library of essential knowledge.

Specifications

234 x 153 mm (6 x 9 ¼ in)

Flexibound

160pp

Three colour throughout

50 illustrations

30,000 words



Navigating Energy

What with fossil fuels and renewables, the climate crisis and carbon capture, nuclear fusion and fission, the modern landscape of energy is a topical, sometimes controversial, and ever-changing place to explore. But how are you expected to navigate this powerful and sometimes perilous world? *Navigating Energy* provides the map you need to start exploring seriously big ideas about the forces that drive our planet and our future. Provocative questions prompt direct answers written by an expert author, with each one the launch point for instructions to help you chart a path through the technologies, debates, and dilemmas of energy. With 'one-stop' graphics signposting a memorable or metaphorical idea for each topic, and 'route map' glossaries explaining key terms and their connections, this is your expert guide to understanding the power that fuels modern life, and the choices we must make to sustain it.

Specifications

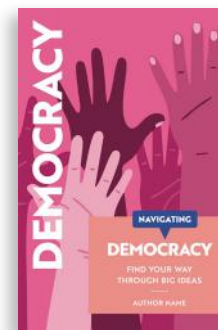
234 x 153 mm (6 x 9 ¼ in)

160pp

Two colour throughout

50 illustrations

30,000 words



Navigating Democracy

What with freedom of speech and censorship, populism and protest, social media and conspiracies, the modern landscape of democracy is a crowded, contested, and often confusing place to explore. So how are you expected to navigate this world of rights, representation, and responsibility? *Navigating Democracy* provides the map you need to start exploring some of the biggest ideas that shape societies today. Provocative questions prompt concise answers written by an expert author, with each one serving as the starting point for instructions to help you chart a course through the promises and paradoxes of democratic life. With 'one-stop' graphics signposting memorable ideas for each topic, and 'route map' glossaries explaining key terms and their connections, this is your expert guide to discovering whether democracy is the ultimate safeguard of freedom—or a fragile system forever at risk of breaking down.

Specifications

234 x 153 mm (6 x 9 ¼ in)

160pp

Two colour throughout

50 illustrations

30,000 words



Specifications

234 x 153 mm (6 x 9 1/4 in)

160pp

Two colour throughout

50 illustrations

30,000 words

Navigating Artificial Intelligence

What with machine learning and deep learning, chat bots and generative AI, large language models and neural networks, the modern landscape of artificial intelligence is suddenly a highly topical place to explore. But how are you expected to navigate this exciting and potentially terrifying world?

Navigating Artificial Intelligence provides the map you need to start exploring seriously big ideas. A wealth of provocative questions prompt “short cut” answers written by an expert author, with each one the setting-off point for instructions to help you plot your path through the labyrinth of AI.

About the Author and Illustrator

Brian Clegg is a British science writer and public speaker known for his works on science, technology, and innovation. He is particularly interested in AI and writing about its history, its impact on society, and its future potential. His work has been featured in *The Guardian*, the *Wall Street Journal*, and *Nature* magazine, and he is a regular contributor to the BBC. Clegg studied Natural Sciences at the University of Cambridge and Operational Research at Lancaster University.

Robert Fiszer is an illustrator who specializes in creating illustrations that convey complex topics more immediately than words. His preferred style is clean and minimalist so the viewer is not distracted by embellishment, instead being drawn directly to the essence of the image – and the point being conveyed.

Why did Alan Turing invent a test?

→ English computer pioneer Alan Turing was fascinated by the concept of machine intelligence long before it became a practical subject. In 1950, he devised a test in an attempt to find out if machines can think as we do.

Alan Turing (1912–1954) was a brilliant mathematician and computer scientist. He was one of the first to see the potential of computers as tools for solving complex problems. In 1950, he published his paper “Computing Machinery and Intelligence,” in which he proposed the Turing Test as a way to determine if a machine could think. The test involves asking a series of questions to a computer, and the computer must answer them in a way that is indistinguishable from a human. Turing believed that if a machine could pass the test, it would be a sign that machines were capable of thought.

AI PASSES THE TEST

In 1950, Alan Turing proposed a test to determine if a machine could think. The test involves asking a series of questions to a computer, and the computer must answer them in a way that is indistinguishable from a human.



Could we ever transfer our minds to computers?

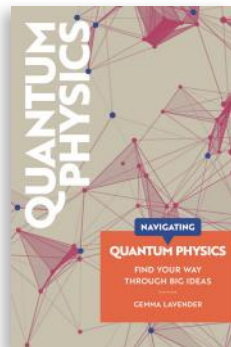
→ If the model of general AI is a computing device that can think as flexibly as a human (or better), a good starting point would be to upload a human brain to a computer. But would this ever be possible, or desirable?

The idea of uploading a human mind to a computer is a popular one. It is the idea of taking a human brain and copying its contents into a digital format, so that it can be stored and run on a computer. This is often referred to as “mind uploading” or “brain scanning.” The idea is that if we can do this, we can create a digital version of ourselves that can live on forever. However, there are many challenges to this idea. For example, how do we know what the mind is? How do we know what it is made of? And how do we know how to copy it?

REPRODUCING NEURONAL FUNCTIONALITY

The brain is a complex organ, and it is not yet clear how to reproduce its functionality. However, there are some promising developments in the field of neural engineering.





Navigating Quantum Physics

What with anti-matter and positrons, quarks and neutrinos, entanglement and parallel universes, the landscape of quantum physics is a bewildering and mindboggling place to explore. So, how are you expected to navigate this theoretical and uncertain world?

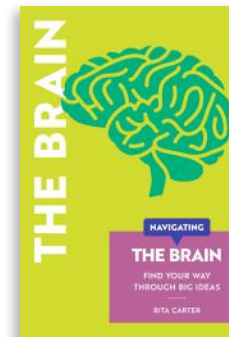
Navigating Quantum Physics provides the map you need to start exploring seriously big ideas. A wealth of provocative questions prompt “short cut” answers written by an expert author, with each one the setting-off point for instructions to help you plot your path through the atomic and sub-atomic maze.

Specifications

234 x 153 mm (6 x 9 1/4 in)
160pp
Two colour throughout
50 illustrations
30,000 words

About the Author

Gemma Lavender is a British astronomer, author and journalist. A fellow of the Royal Astronomical Society since 2011, she has worked at the European Space Agency since 2023 and prior to this held roles with Space.com and Live Science. She has written for *Astronomy Now*, the Institute of Physics and NASA, and holds a Masters degree in Astrophysics from Cardiff University.



Navigating The Brain

What with consciousness and perception, memory and dementia, altered mental states and artificial intelligence, the modern landscape of brain science is an extraordinary place to explore. But how are you expected to navigate the complexities of this mysterious marvel?

Navigating The Brain provides the map you need to start exploring seriously big ideas. A wealth of provocative questions prompt “short cut” answers written by an expert author, with each one the setting-off point for instructions to help you plot your path through the maze of the mind.

With “one-stop” graphics signposting a memorable idea for each topic, and “route map” glossaries explaining key terms and their connections, *Navigating The Brain* is your expert guide to understanding the world of wonders cradled within your skull.

Specifications

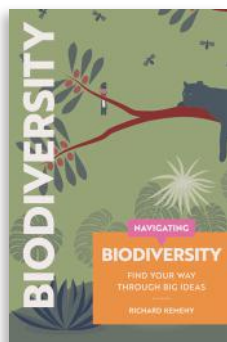
234 x 153 mm (6 x 9 1/4 in)
160pp
Two colour throughout
50 illustrations
30,000 words

About the Author and Illustrator

Rita Carter is a science and medical writer, lecturer, and broadcaster who specializes in the human brain: what it does, how it does it, and why. She has twice been awarded the Medical Journalists' Association Prize for outstanding contribution to medical journalism and has been shortlisted for the Royal Society Prize for Science Books. Rita studied Psychology at Oxford University and holds an honorary doctorate from Leuven University for services to the public understanding of the brain.

Robert Brandt is an illustrator of information graphics, editorial artwork, and technical illustrations, whose art has been commissioned internationally by clients including Unilever, Universal Music, *National Geographic*, the Smithsonian Institution, Hachette, Ammonite Press, and Ivy Press.





Navigating Biodiversity

What with evolution and extinction, food chains and keystone species, rewilding and regeneration, the modern landscape of biodiversity is a vital place to explore. But how are you expected to navigate the science and significance of this complex world?

Navigating Biodiversity provides you with the map you need to start exploring seriously big ideas. A wealth of provocative questions prompt “short cut” answers written by experts in their field, with each one the setting-off point for instructions to help you plot your path through the biosphere.

With “one-stop” graphics visualizing a memorable study or idea for each topic, and “route map” glossaries explaining key terms and their connections, *Navigating Biodiversity* is your expert guide to understanding the biology, history, taxonomy, and extraordinary diversity of life on Earth; and what is being done to confront the many threats that it faces.

Specifications

234 x 153 mm (6 x 9 1/4 in)

160pp

Two colour throughout

50 illustrations

30,000 words

About the Author and Illustrator

Richard Kemeny is a writer specializing in science and the environment, with a particular emphasis on climate change, ecology, and biodiversity. His work has featured in *National Geographic*, *BBC Travel*, *Smithsonian*, *New Scientist*, *The Economist*, *Hakai Magazine*, *The Atlantic*, *Wired UK*, *MIT Technology Review*, *Science*, and *Sapiens*.

Robert Fiszer is an illustrator who specializes in creating illustrations that convey complex topics more immediately than words. His preferred style is clean and minimalist so the viewer is not distracted by embellishment, instead being drawn directly to the essence of the image – and the point being conveyed.

How much is a coral reef worth?

→ Putting a value on this is tricky. Economically, coral reefs and other ecosystems are worth trillions of dollars each year, but the natural world should be appreciated for its intrinsic value too – and in this sense it is priceless.

Σ Biodiversity is fundamental to the systems that support human life. Earth's ecosystems help to regulate our climate and provide us with clean air, clean water, food, fuel and medicines.

The extrinsic value of biodiversity takes into account the financial benefits from all the goods and services it provides. If money is the measure, then estimates suggest the services provided by ecosystems reach the trillions of dollars annually – double the world's GDP. There is also huge potential for developing new medicines or technologies inspired by biodiversity – as long as we can protect this diversity and avoid the substantial losses created by overexploitation. Considering biodiversity from a financial perspective can help generate investments and policies for conservation programmes, along with schemes to protect nature as a whole. Nevertheless, there is a lot of variability and uncertainty in biodiversity, not least because we have only recorded a fraction of the life that currently exists. Some organisations are supporting a move away

from the conservation of individual species, or within protected areas, to landscape-scale conservation – safeguarding the ecological functions and services of large ecosystems over the long term.

Nature should also be considered according to its intrinsic value – its true worth is not the same as its price. A number cannot capture the full value of its contribution to our world. It has intrinsic value simply by existing. And it has living organisms into our own value system, one based largely on economic growth, which is a factor in biodiversity loss. Natural spaces and biodiversity are aesthetically pleasing, good for our health, and have provided spiritual and cultural wealth – and habitats – for human societies for thousands of years.

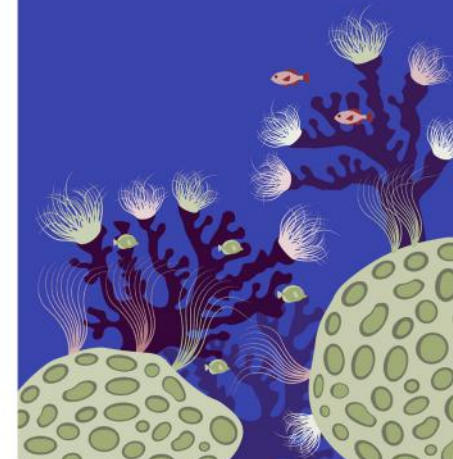
Valuing biodiversity is a complex issue – and a hotly debated one at that. Yet in some ways, it can be simple. Watching a hermit crab move into a new shell, an orangutan feeding its baby or luminescent plankton glowing in the ocean at night – could you put a price on that?

18 ORIGINS OF DIVERSITY

THE CORAL ECONOMY

Coral reefs are some of the most important ecosystems on our planet. They are linchpins of the marine environment and host a quarter of all known species in the oceans. They support the livelihoods of around 500 million people around the world, in over 100

countries. The goods and services they provide – to fisheries and tourism, for example – are valued at over \$19 trillion per year. They also protect coastal communities from hurricanes and flooding, which begs the question: How much is that human life worth, too?



Do mountains make life more interesting?

→ Yes, they do, but over the course of a very, very long period of time – think millions of years. It's seismic geological processes like volcanoes and earthquakes that shape our world and the biodiversity within it.

Σ The biosphere is the sum of all life on Earth, a global ecosystem made up of many connected others. While holding a tremendous amount of life, the biosphere is just a thin film covering Earth's surface. Biodiversity is shaped by geological processes that are far larger and slower, and happening below the surface.

Our continents and oceans sit on a series of tectonic plates, rocky structures that float on molten rock below. Over huge timescales, these plates stretch, deform, diverge and collide with each other. This causes seismic activity, the earthquakes and volcanoes, and shapes the land and oceans. Mountains are born from a collision between two continental plates – this is why some ranges are still rising.

The breaking apart of continents and the formation of mountains create physical barriers that can separate gene pools. Continental collisions create new land bridges over which organisms can migrate and mix. The distribution of continents and their physical features also affects the

global climate, with knock-on effects for biodiversity. The rocks, soils and sediments churned up by geological activity provide the minerals and nutrients necessary to sustain life. These are more varied in mountainous areas, which account for around 87 per cent of all life on land.

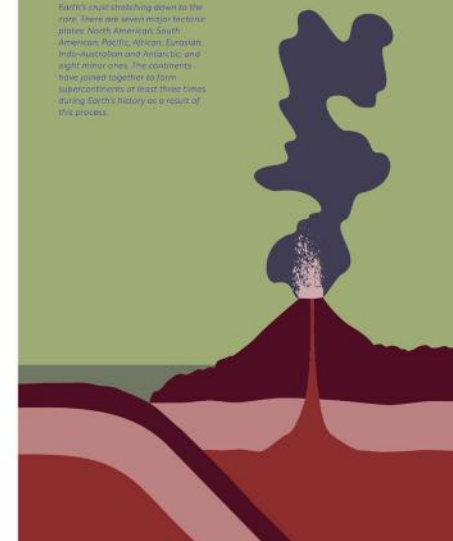
Geological processes are also key to the creation of endemic species, irreplaceable organisms unique to specific areas. On islands, organisms are isolated and develop along their own evolutionary path. Mountain building and the creation of archipelagos have driven up biodiversity across the planet, through the creation of many new ecological niches. Think of the Amazon river, which starts as a trickle of water in the Andes and flows through vibrant rainforest out into the ocean, supporting life along the way.

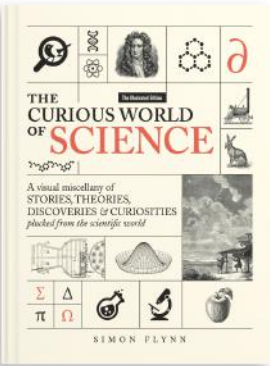
Over 200 million years ago, all our continents were part of one supercontinent, known as Pangea. Their separation led to the creation of many new habitats and more speciation, and biodiversity is far higher today as a result.

20 ORIGINS OF DIVERSITY

PLATE TECTONICS

Tectonic plates are constantly in motion, albeit very slowly – perhaps only one or two inches a year. This movement is driven by convection in the mantle, a process that has shaped Earth's crust stretching down to the core. There are seven major tectonic plates: North American, South American, Pacific, African, Eurasian, Indo-Australian and Antarctic, and eight minor ones. The continents have joined together to form supercontinents at least three times during Earth's history as a result of this process.





The Curious World of Science

A Visual Miscellany of Stories, Theories, Discoveries & Curiosities Plucked from the Scientific World

To some, science is simply a means to an end; to others it is an almost spiritual meditation on theories and formulae.

The Curious World of Science embraces both views and much more besides. Focusing on the human endeavours at the heart of science, it presents a miscellany of essential classifications, intriguing biographies, amusing curiosities, and irresistible trivia. Bitesize morsels of text explore the worlds of physics, chemistry, biology, and math, while also venturing into those magical areas where science meets art.

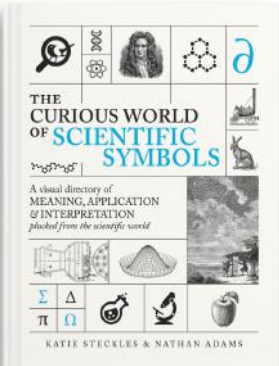
Derived from the text of the bestselling *Science Magpie*, this illustrated miscellany offers a system of icons to signpost different paths through the book. From the Large Hadron Collider rap to the sins of Isaac Newton, it offers a dizzying flight through the wonderfully human world of scientific knowledge.

Specifications

246 x 190 mm (7 ½ x 9 ¾ in)
224pp
Four colour throughout
200 illustrations
60,000 words

About the Author

Simon Flynn has a suitably magpie-like nature. He has an insatiable curiosity for scientific treasures and rarities and has enjoyed an eclectic career. With a genuine passion for science, he currently works as a science teacher, having previously been a writer, editor, and publisher. Simon has degrees in Chemistry, Philosophy, and Science Education and his other published titles include *The Internet from A to Z* and *The Ultimate Guide to Everything*. Simon lives in north London with his wife and stepdaughter.



The Curious World of Scientific Symbols

A Visual Dictionary of Meaning, Application & Interpretation Plucked from the Scientific World

The Curious World of Scientific Symbols reveals the history, meaning, and application of the symbols we use every day, together with those that are a little more obscure.

Arranged over five chapters that cover different alphabets and numbers used in science and math, the book also includes a visual index to help identify the name or term for each of the featured symbols.

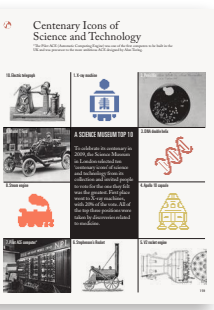
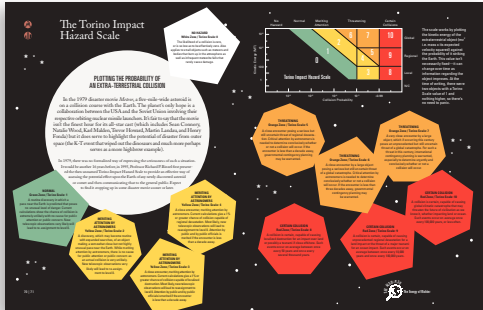
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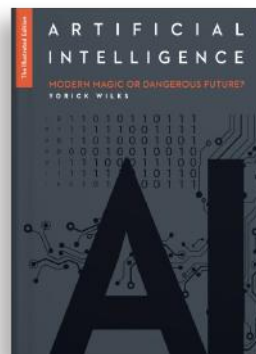
246 x 190 mm (7 ½ x 9 ¾ in)
224pp
Four colour throughout
200 illustrations
60,000 words

About the Authors

Katie Steckles is a mathematician based in Manchester, UK. Her work to popularize and demystify mathematics has taken her around the world and onto TV and radio. Katie has received a number of awards, including the London Mathematical Society Popular Lecturer for 2018.

Nate Adams is a biophysicist based in Munich, Germany. In his day job he works out the best way to shoot lasers at proteins. Outside of research he has worked as a science presenter and writer for TV and on stage, including for the BBC, Sky, and the Royal Institution.





Artificial Intelligence

Modern Magic or Dangerous Future?

The benefits and potential nightmares of artificial intelligence have long inspired science-fiction writers, but in a world where most of us carry a portable device that knows infinitely more than we do, these are increasingly real concerns.

Artificial Intelligence is the essential companion to this unsettling science. It surveys the history, philosophies, and current state of AI, and asks key questions such as how should robots think, and can machines really learn? With subjects ranging from the World Wide Web to artificial companions, the book considers such ethical issues as automated warfare, internet surveillance, and fake news, speculating on just how far robots will infiltrate our future.

This illustrated edition updates a previous text-based version by combining compelling photographs with “circuit-board” infographics to lift the curtain on the hidden world of AI.

Specifications

228 x 165 mm (6 1/2 x 9 in)

224pp

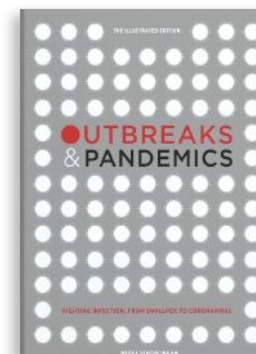
Four colour throughout

100 illustrations

45,000 words

About the Author

Yorick Wilks is a computer scientist with an interest in artificial intelligence and the processing of language, knowledge, and belief. He read Philosophy at Pembroke College, Cambridge, UK, and is now Emeritus Professor of Artificial Intelligence at the University of Sheffield, UK, a Senior Research Fellow at the Oxford Internet Institute, a Senior Research Scientist at the Florida Institute of Human and Machine Cognition, and Visiting Professor of Artificial Intelligence at Gresham College, UK. He helped to design GATE architecture and won the annual Loebner Prize for modeling human-computer dialogue. His published books include *Artificial Companions* and *Artificial Believers: The Ascription of Belief*.



Outbreaks & Pandemics

Fighting Infection, from Smallpox to Coronavirus

For decades scientists have been warning of global pandemics, and the COVID-19 coronavirus outbreak realized their worst fears.

Outbreaks & Pandemics, written on the eve of the pandemic, has proved to be grimly prophetic. It narrates a disquieting journey through the history, science, and politics of humankind's ongoing war against contagion; investigates modern responses; and assesses the chances of eradicating disease in the future. It also reveals how globalization, mobile populations, climate change, vaccine hesitancy, and drug-resistant pathogens have combined to create the perfect conditions for pandemics to spread.

This updated and illustrated edition is essential reading, combining extensive research with illuminating photographs and infographics to chart the pattern of outbreaks and reveal the microscopic world at their heart.

Specifications

228 x 165 mm (6 1/2 x 9 in)

224pp

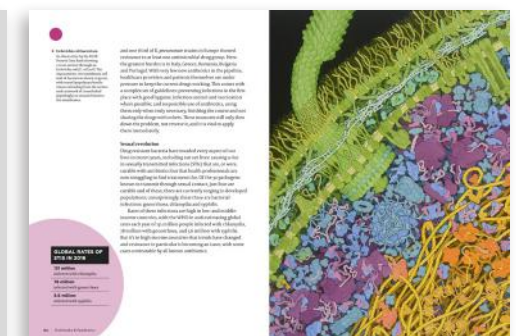
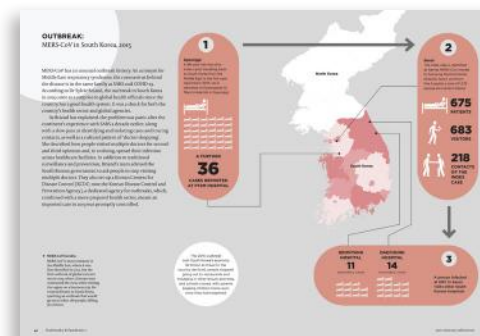
Four colour throughout

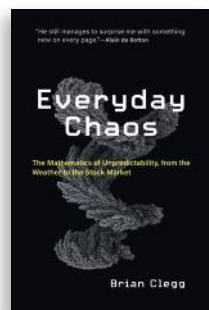
100 illustrations

50,000 words

About the Author

Meera Senthilingam is a journalist, editor, and public health consultant specializing in global health and infectious disease. She obtained a BSc in Biology from the University of Nottingham, UK, and Masters degrees in Science Communication at Imperial College London, and in the Control of Infectious Diseases at the London School of Hygiene and Tropical Medicine (LSHTM). Meera is a health editor for CNN and has worked with the BBC and with global health programs as well as research institutions including the LSHTM and the Wellcome Trust.





Everyday Chaos

The Math of Unpredictability,
from the Weather to the Stock Market

Trying to understand a system with multiple interacting components – the weather, the human body, or the stock market – means dealing with two factors: chaos and complexity. If we don't understand these two essential subjects, we can't understand the real world.

In *Everyday Chaos*, Brian Clegg explains chaos and complexity for the general reader, with discussions of predictable randomness, the power of probability, and the behaviour of pendulums. He describes what Newton got wrong about gravity; how feedback kept steam engines from exploding; and why weather produces chaos. He considers the stock market, politics, bestseller lists, big data, and London's wobbling Millennium Bridge.

In this fascinating, beautifully illustrated title, we learn that our brains are complex, self-organizing systems; that the structure of snowflakes exemplifies emergence; and that life itself has been shown to be an emergent property of a complex system.

Specifications

234 x 156 mm (6 ¼ x 9 ¼ in)

256pp

Four colour throughout

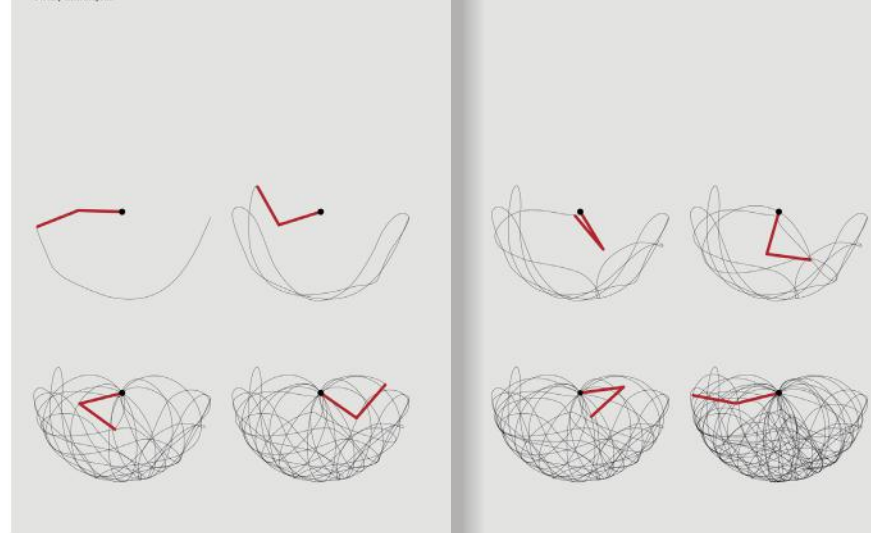
160 illustrations

45,000 words

About the Author

Brian Clegg is a renowned popular science writer who specializes in making the exotic aspects of physics approachable, informative, and entertaining for a broad readership. He has a degree in Natural Sciences from Cambridge and a Masters in Operational Research (OR)—mathematical problem solving—from Lancaster. Brian is a Fellow of the Royal Society of Arts, and his published titles include *A Brief History of Infinity* and *Dice World* (both longlisted for the Royal Society Prize); and *Everyday Chaos* and *Ten Patterns That Explain the Universe* (both MIT Press).

Double pendulum path
One example of the motion over time of a pendulum with a single joint. Starting it again would trace a totally different path.



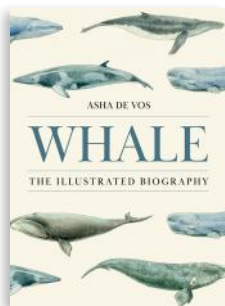
40 CHAPTER 1

41 CLOCKWORK AND CHAOS



Stormy weather: the definitive chaotic system
The sensitivity of the weather to small differences in conditions inspired the development of chaos theory.

44 CHAPTER 1



Whale

The Illustrated Biography

Whales are the majestic giants of the ocean, yet in key respects they remain mysterious to us. The exact routes of their vast oceanic migrations remain largely elusive, as do the intricacies of their behaviour and social dynamics. Yet learning how whales live is crucial to our efforts to preserve marine ecosystems, since they play key roles in nutrient cycling, regulating prey populations, and influencing carbon sequestration. Studying whales helps us to monitor ocean health and provides insights into the impacts of environmental changes on marine life.

Whale: The Illustrated Biography offers a unique perspective on the lives of whales, guided by a leading expert. It charts the life stories of whales in all their diversity and complexity, and it provides information on its subjects' conception, birth, childhood, family history, relationships, communication, and life challenges.

Specifications

228 x 165 mm (6.5 x 9 in)

224pp

Four colour throughout

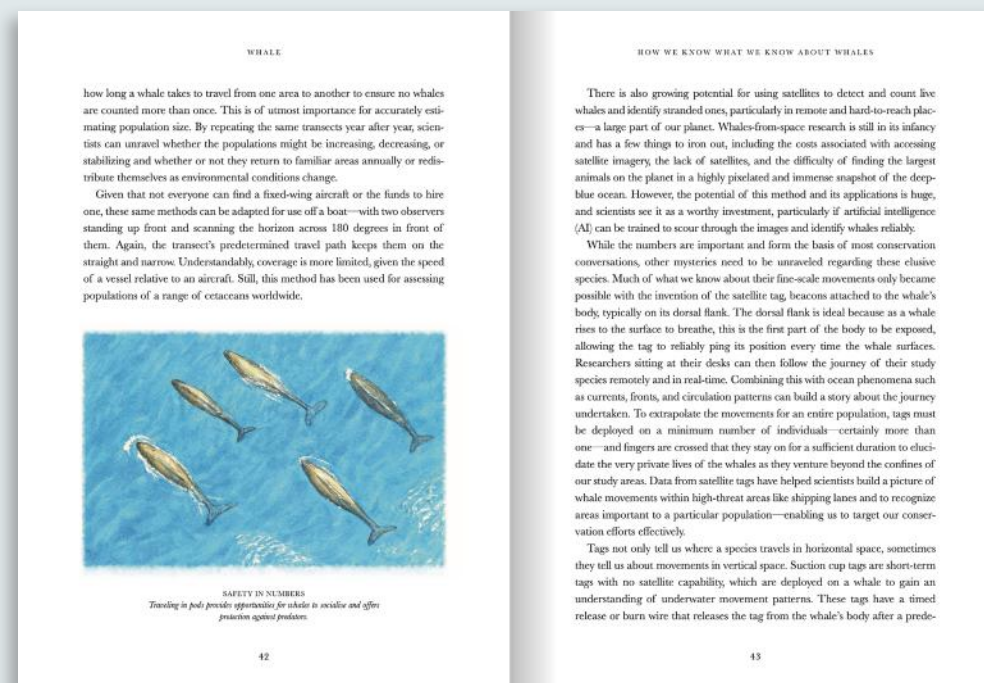
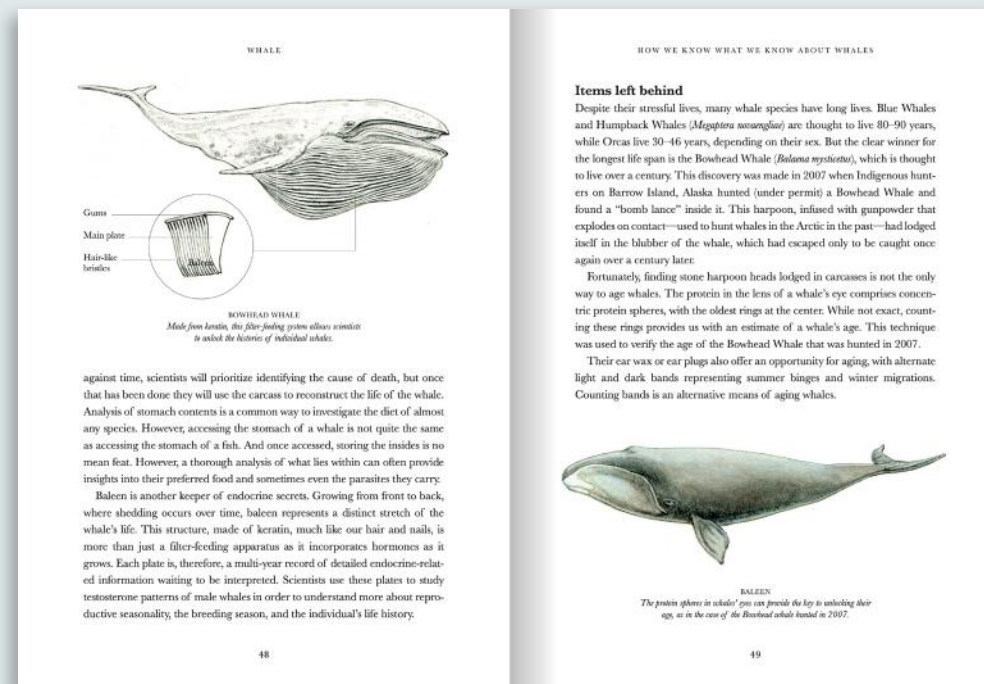
100 illustrations

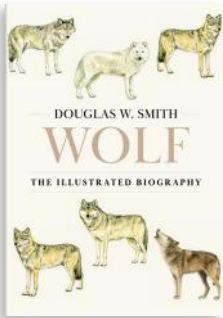
52,000 words

About the Author and Illustrator

Asha de Vos is a Sri Lankan marine biologist, ocean educator, and pioneer of blue whale research within the northern Indian Ocean. She is an Adjunct Research Fellow at the Oceans Institute of the University of Western Australia, and has degrees from the University of St. Andrews, University of Oxford, and the University of Western Australia. She is the first Sri Lankan to have a PhD in Marine Mammal research. Asha left academia to found her own nonprofit, Oceanswell – Sri Lanka's first marine conservation research and education organization. Her work has been featured by the BBC, the *New York Times*, TED, and *National Geographic*.

Adam Hook has over 35 years of experience working as an illustrator and artist. Clients include Osprey Publishing, World Book, Heinemann Educational, Harper Collins, Macmillan, Bloomsbury, Kingfisher, the University of Chicago Press, Larousse, Allen and Unwin, Templar, Usborne, D. C. Thomson, and Ivy Press.





Wolf

The Illustrated Biography

Perhaps more than any other animal, wolves evoke a sense of Earth's dwindling wildernesses. After being hunted to near-extinction in some regions, successful programs of reintroduction have brought wolves to the edges of urban populations again. Rather than fear them, we should understand better how they live – their biology and behaviour – and the crucial role they play in maintaining ecosystem balance. By learning about wolves, we gain insights into wider questions of wildlife conservation and management.

Wolf: The Illustrated Biography offers a unique perspective on the lives of wolves from a world-renowned expert. It charts the life stories of wolves in all their diversity and complexity, and it provides information on its subjects' birthplace, childhood, family history, relationships, and significant life challenges.

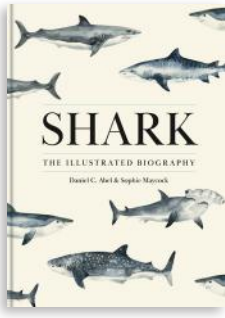
About the Author and Illustrator

Douglas W. Smith is a renowned biologist and conservationist best known for his work on the reintroduction of wolves to Yellowstone National Park. Doug has been at the forefront of wolf ecology for over three decades, leading research efforts on their behaviour, pack dynamics, and ecological impact. A passionate advocate for predator conservation, Doug has dedicated his career to studying how wolves interact with their environment and influence species like elk and beavers, contributing to a deeper understanding of trophic cascades. Beyond his fieldwork, Doug is a sought-after speaker and educator and his dedication to protecting wolves and promoting coexistence between humans and wildlife continues to inspire conservation efforts worldwide.

Adam Hook has over 35 years of experience working as an illustrator and artist. Clients include Osprey Publishing, World Book, Heinemann Educational, Harper Collins, Macmillan, Bloomsbury, Kingfisher, the University of Chicago Press, Larousse, Allen and Unwin, Templar, Usborne, D. C. Thomson, and Ivy Press.

Specifications

228 x 165 mm (6 1/2 x 9 in)
224pp
Four colour throughout
100 illustrations
52,000 words



Shark

The Illustrated Biography

Shark: The Illustrated Biography offers a unique perspective into the lives of these fascinating, often-feared predators. It charts the life stories of sharks in all their diversity and complexity, and it provides information on its subjects' birthplace, childhood, family history, relationships, and significant life challenges.

As no two species of shark have the same life history, this book presents a wide array of species and habitats around the globe, examining their biology, ecology, and behaviour, as well as exploring the cultural role sharks have played in human history.

The authors' passionate and compelling narrative style is supported by detailed illustrations and captivating photography.

About the Authors

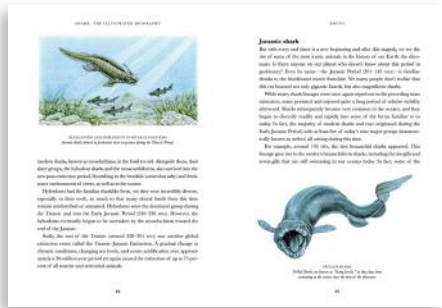
Daniel C. Abel is Professor of Marine Science at Coastal Carolina University in Conway, South Carolina, USA. His research focuses on the physiology and ecology of sharks and rays. He is co-author of several leading books on sharks and is a Senior Fellow of the US Partnership for Education for Sustainable Development. He resides in Pawley's Island, South Carolina, USA.

Sophie A. Maycock gained an MSc in Evolution, Biodiversity, and Conservation from Leiden University in the Netherlands. She is the current UK Representative at the Sharks Educational Institute and a volunteer science writer and communicator at SharkSpeak. She has written extensively on sharks for her academic work but also maintains a high level of engagement with her posts on social media. She lives in Oxfordshire, UK.

Adam Hook has over 35 years of experience working as an illustrator and artist. Clients include Osprey Publishing, World Book, Heinemann Educational, Harper Collins, Macmillan, Bloomsbury, Kingfisher, the University of Chicago Press, Larousse, Allen and Unwin, Templar, Usborne, D. C. Thomson, and Ivy Press.

Specifications

228 x 165 mm (6 1/2 x 9 in)
224pp
Four colour throughout
100 illustrations
52,000 words



The Lives Of...

SERIES

The *Lives Of* series offers a captivating exploration of the hidden worlds of some of Earth's most fascinating organisms. From beetles to bees, lichens to fungi, each book dives into the complex biology, behaviours, and ecosystems of these often-overlooked life forms, revealing the vital roles they play in our planet's biodiversity.

With stunning visuals and accessible, in-depth research, the series opens readers' eyes to the intricate lives of species that are essential to the balance of nature. Whether you're fascinated by the interdependence of lichens, the industrious work of bees, or the incredible variety of beetles, the *Lives Of* series brings the wonders of the natural world into sharp focus, making it an ideal collection for nature enthusiasts, biologists, and curious minds alike.



Specifications

246 x 190 mm (7 ¾ x 9 ½ in)
288pp
Four colour throughout
150 illustrations
60,000 words



THE MAKING OF MODERN SURVIVORS

SCAPHIOPHRYNE PELODYTES

Seychelles Frog

An ancestral lineage that dates back 65 million years

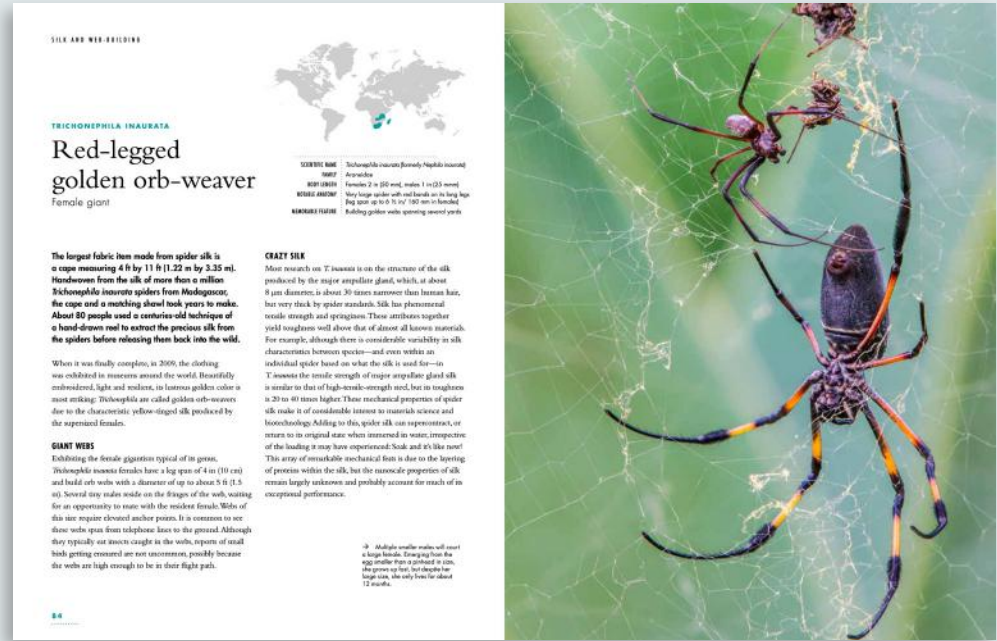
The Scaphiophryne are one of only two anuran families endemic to an archipelago (the other being New Zealand's Leiopelmatidae). They are among the oldest known neotropical lineages, having diverged from their closest living relative, India's purple burrowing frogs (Nasikabatrachionidae) 66 mya—meaning these frogs survived the asteroid impact that wiped out the dinosaurs. The Seychelles Frog is found on three of the granitic inner islands—comprising of several mountain peaks sitting atop a microcontinental fragment of Gondwana (most of which is submerged around 180 to 55 m below sea level)—and like other scaphiophrynids has an entirely terrestrial life history.

Despite having no external or middle ear, the Seychelles Frog makes complex vocalizations with at least two different notes—the majority of frogs repeat just a single note. The sound is possibly received through bone conduction in the head and/or through the skin and shoulder, vibrations through the body wall, and via the lungs toward the inner ear, or via the opercular system (unique to amphibians and considered an adaptation to life on land). To attract females, male frogs vocalize from cool, damp patches beneath leaf litter or from cracks and crevices in tree roots or rocks. Eggs are deposited, fertilized, and then guarded by one

SCIENTIFIC NAME: Scaphiophryne pelodytes
TAXA: Liliaceae
LIFE SPAN: Sexual stage 15–18 m (climatic, variable, and stable)
REPRODUCTION: Female cares for the young (inhabits by carrying them in her back during early life and when they develop into tiny frogs and larvae)
OTHER INFO: Endangered (2012)

or possibly both parents. Larvae develop into tadpoles within the egg, and on hatching climb on to the back of the female, where they remain until they metamorphose into tiny frogs just a few millimeters long. Throughout this time, the young do not feed, subsisting solely on the yolk. Being colored a mixture of brown, and sometimes even pale pink, with dark patches and bands, dotted with orange-tipped tubercles, and often with small patches and dots of blue, the Seychelles Frog perfectly blends into its forest floor habitat, where it is found in mid- to high-elevation rain, palm, and mixed forest, often adjacent to streams. There is evidence to suggest that these frogs have adapted to historic climate warming, as those from Praslin (1,204 to 1,367 m elevation) are found in much lower and drier habitats than frogs from either Silhouette (1,248 to 1,780 m) or Mahé (1,369 to 1,905 m) in the Seychelles.

→ The Seychelles Frog has a distinct genetic identity that is specific to each of the three islands—Mahé, Silhouette, and Praslin—where it is found. Frogs from Praslin may be the largest, but they are also the most common. In some cases, they are considered a subspecies.



SILK AND WEB-BUILDING

TRICHONEPHILA INAUROATA

Red-legged golden orb-weaver

Female giant

The largest fabric item made from spider silk is a cage measuring 4 ft by 11 ft (1.22 m by 3.35 m). Handwoven from the silk of more than a million *Trichonephila inaurata* spiders from Madagascar, the cage and a matching shawl took years to make. About 80 people used a centuries-old technique of a hand-drawn reel to extract the precious silk from the spiders before releasing them back into the wild.

When it was finally complete, in 2009, the clothing was exhibited in museums around the world. Beautifully embroidered, light and resilient, its lustrous golden color is most striking. *Trichonephila* are called golden orb-weavers due to the characteristic yellow-tinted silk produced by the spinneret females.

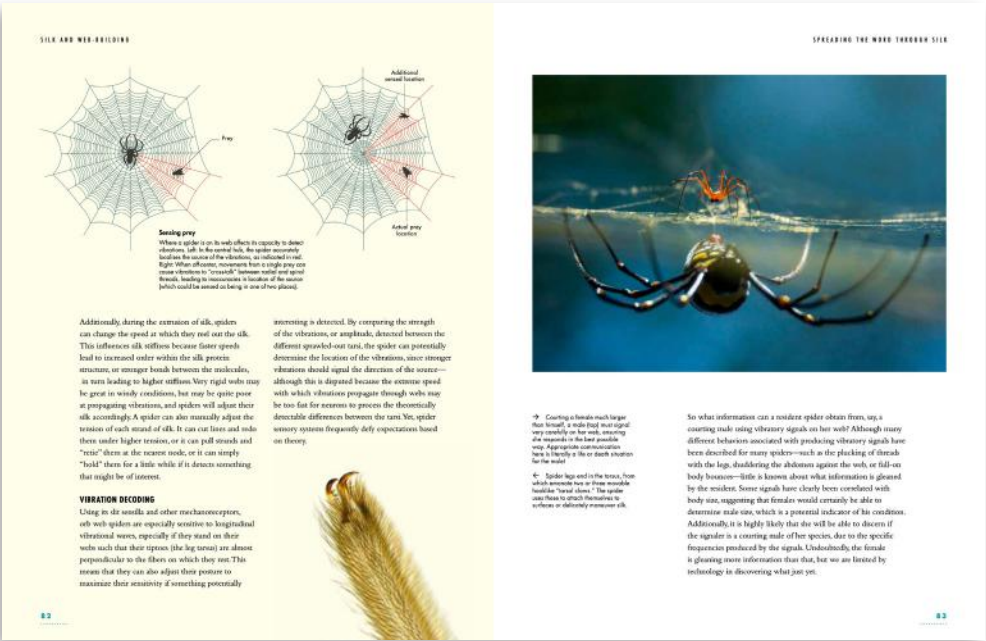
GIANT WEBS

Exhibiting the female giganter type of its genus, *Trichonephila inaurata* females have a leg span of 4 in (10 cm) and build orb webs with a diameter of up to about 5 ft (1.5 m). Several tiny males reside on the fringes of the web, waiting for an opportunity to mate with the mature female. Webs of this size require elevated anchor points. It is common to see these webs spun from telephone lines to the ground. Although they typically eat insects caught in the webs, reports of small birds getting ensnared are not uncommon, possibly because the webs are high enough to be in their flight path.

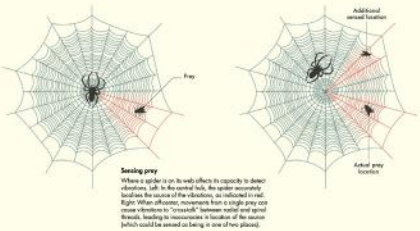
CRAFTY SILK

Most research on *T. inaurata* is on the structure of the silk produced by the major ampullate gland, which, at about 8 µm diameter, is about 30 times narrower than human hair, but very thick by spider standards. Silk has phenomenal tensile strength and springiness. These attributes together yield toughness well above that of almost all known materials. For example, although there is considerable variability in silk characteristics between species—and even within an individual spider based on when the silk is used for—*T. inaurata* the tensile strength of major ampullate gland silk is similar to that of high-tensile-strength steel, but its toughness is 20 to 40 times higher. These mechanical properties of spider silk make it of considerable interest to materials science and biotechnology. Adding to this, spider silk can regenerate, or return to its original state when immersed in water, irrespective of the loading it may have experienced. Look and it's like steel! This array of remarkable mechanical facts is due to the layering of proteins within the silk, but the molecular properties of silk remain largely unknown and probably account for much of its exceptional performance.

→ Multiple smaller males will crawl a long distance from the egg and/or from a partner in case, the primary male has died. In large cases, the only time for about 12 males.



SILK AND WEB-BUILDING



Additionally, during the extension of silk, spiders can change the speed at which they reel out the silk. This influence silk stiffness because faster speeds lead to increased order within the silk protein structure, or stronger bonds between the molecules, in turn leading to higher stiffness. Very rigid webs may be great in windy conditions, but may be quite poor at propagating vibrations, and spiders will adjust their silk accordingly. A spider can also naturally adjust the tension of each strand of silk. It can cut lines and make them under higher tension, or it can pull strands and "reset" them to a little while if it detects something that might be of interest.

VIBRATION DECODING

Using its de sensilla and other mechanoreceptors, web spiders are especially sensitive to longitudinal vibrational waves, especially if they stand on their webs such that their tips (the leg bases) are almost perpendicular to the fibers on which they rest. This means that they can also adjust their posture to maximize their sensitivity if something potentially

interesting is detected. By comparing the strength of the vibrations, or amplitude, detected between the different strands of silk, the spider can potentially determine the location of the vibrations, since stronger vibrations should signal the direction of the source—although this is disputed because the extreme speed with which vibrations propagate through webs may be too fast for neurons to process the theoretically detectable differences between the same. Yet, spider sensory system frequently defy expectations based on theory.

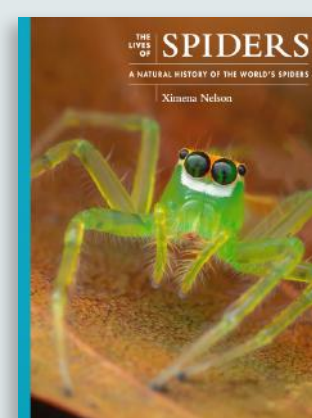
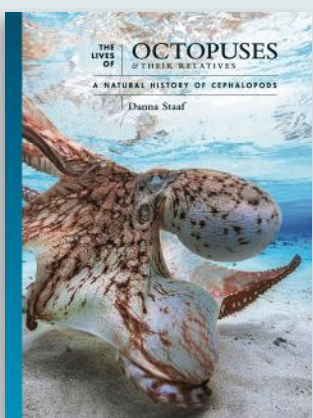
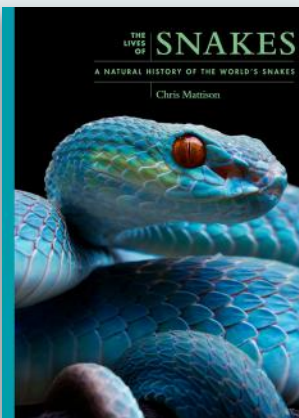
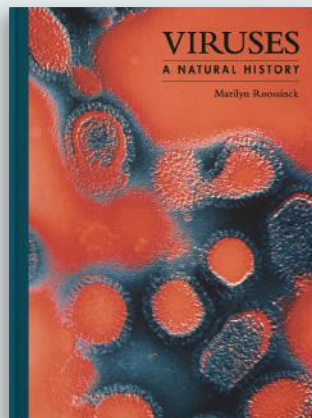
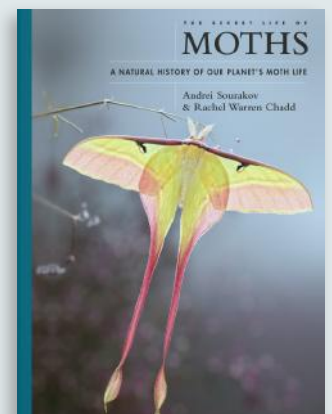
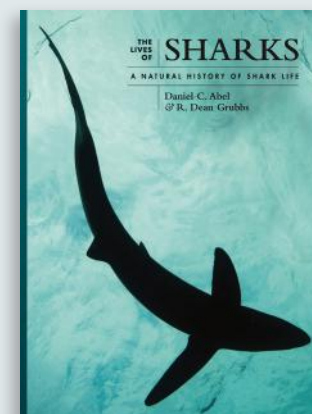
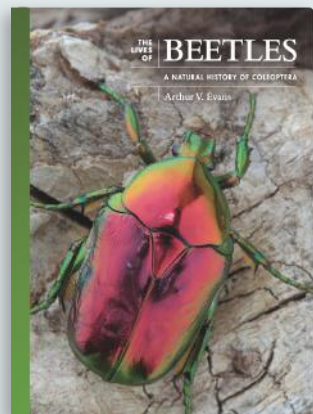
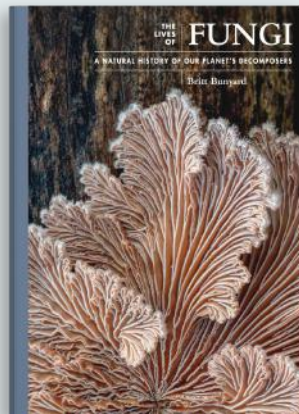
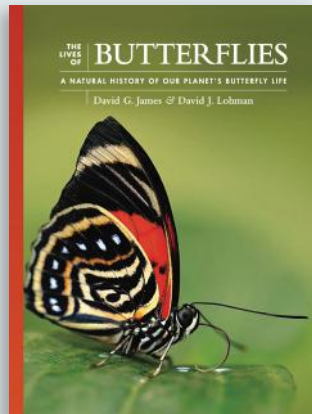
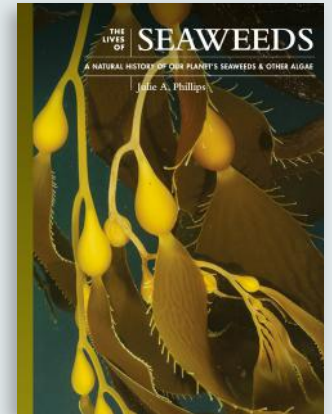
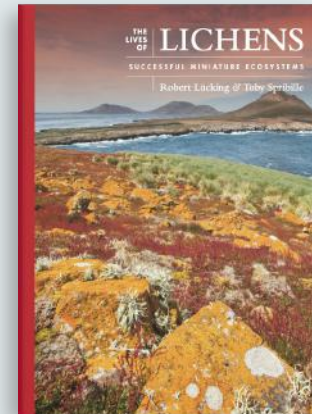
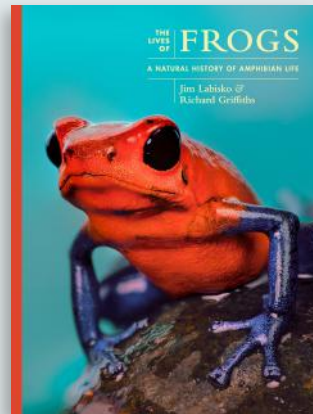


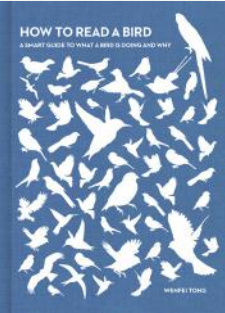
→ Counting a female much larger than her male, a spider that is not a giant very carefully on her web, ensuring she is ready to be the best possible wing. Appropriate communication here is likely to be the best solution for the web.

→ Spider legs and the base, from which sensitive hairs or fine sensilla protrude. These hairs are used to detect vibrations in the web.

So what information can a resident spider obtain from, say, a courting male using vibratory signals on her web? Although many different behaviors associated with producing vibratory signals have been described for many spiders—such as the plucking of strands with the legs, shuddering the abdomen against the web, or full-on body bounce—little is known about what information is gleaned by the resident. Some signals have clearly been correlated with body size, suggesting that females would certainly be able to determine male size, which is a potential indicator of his condition. Additionally, it is highly likely that the web will be able to discern if the spider is a courting male of the same species, due to the specific frequencies produced by the signals. Undoubtedly, the female is gathering more information than that, but we are limited by technology in discerning what just yet.

ALSO AVAILABLE





Specifications

228 x 165 mm (6 1/2 x 9 in)
224pp
Four colour throughout
150 illustrations
52,000 words



Specifications

228 x 165 mm (6 1/2 x 9 in)
224pp
Four colour throughout
150 illustrations
52,000 words

How to Read a Bird

A Smart Guide to What a Bird is Doing and Why

Birds are intelligent, sociable creatures that often mate for life; many fashion tools and solve complex problems, and all conduct multiple relationships using a variety of ways to communicate. Unlocking a fascinating world of intricate behaviours found in the bird kingdom, *How to Read a Bird* decodes movements, sound, and flock interactions within seasons and habitat. In the capable hands of scientist Wenfei Tong, naturalists and bird lovers will discover a wealth of new ways to appreciate birds.

About the Authors

Wenfei Tong is Assistant Professor at the University of Anchorage in Alaska, USA. With a PhD from Harvard University, USA, Tong developed her interest in the evolution of cooperation and conflict at all levels of biological organization in Doug Emlen's lab at the University of Montana, USA.

Ben Sheldon is Professorial Fellow of Wolfson College, Oxford University, UK, Luc Hoffmann Professor of Ornithology, and Director of the Edward Grey Institute.

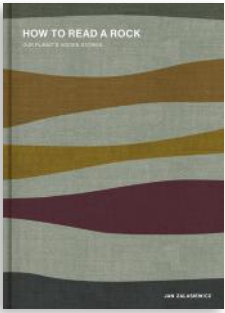
How to Read an Insect

A Smart Guide to What an Insect is Doing and Why

Most insects are too small to be easily noticed – beyond being branded a nuisance – so few are watched with appreciation. This is a great pity, as everything about the insect world is staggering – from the sheer diversity of forms to the mindboggling ways in which they function. This companion guide explores the lives of these miniature creatures, highlighting and explaining a wealth of fascinating and esoteric behaviours. From elegant displays of courtship to brutal acts of predation, insect watching rewards with dramatic action and fascinating biology.

About the Author

Ross Piper is a zoologist, author, and presenter. As a Visiting Research Fellow at the University of Leeds, UK, a Visiting Fellow at the University of Essex, UK, and a Fellow of the Royal Geographical Society, Ross has published over 30 scientific papers. He is an expert in animal diversity in general, and especially in insects, focusing on communicating animal diversity, the ecology and conservation biology of beetles, tropical arthropod diversity, and the ecology of solitary wasps.



Specifications

228 x 165 mm (6 1/2 x 9 in)
224pp
Four colour throughout
150 illustrations
52,000 words



How to Read a Rock

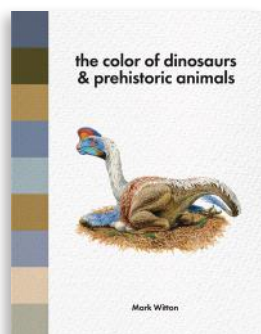
Our Planet's Hidden Stories

Earth's life story is written in its rocks. They are time machines, which can transport us over billions of years through the metamorphoses by which our planet was forged.

How to Read a Rock combines a guide to deciphering these sagas of our planet's past with case studies of the rocks and landscapes that best tell those tales. Using stones as storytellers, it narrates the prehistoric forces of shifting continents; considers how manufactured rocks are transforming Earth's geology; travels with space probes to distant moons and planets; and asks what our geological past can predict of our future.

About the Author

Jan Zalasiewicz is a field geologist and stratigrapher, with over 100 published academic articles to date on rock-related processes. Over the last couple of decades he has been increasingly involved in writing science journalism pieces for *New Scientist*, *Scientific American*, the *Education Guardian*, as well as writing for radio and television. He has five popular geology books published by Oxford University Press including *The Earth After Us* and *The Planet in a Pebble*.



The Color of Dinosaurs & Prehistoric Animals

Our knowledge of the colors of dinosaurs and prehistoric creatures has been revolutionised in recent times by scientific studies of the melanin contained in fossils, offering us a clear window through which to view the true appearance of the paleo world.

The Color of Dinosaurs & Prehistoric Animals explores different routes to a deeper knowledge of the palette of the prehistoric world, explaining what we know, how we know, and what still eludes us. It does so with an eye on our own natural world, tracing our brilliant biodiversity to its palaeontological roots. Renowned palaeontologist and palaeoartist Dr Mark Witton combines a storyteller's narrative with an artist's eye to create meticulously researched reconstructions of the prehistoric world – analysing key shades, tones and patterns, and their significance – making this book a valuable and vibrant technicolor addition to every dinosaur enthusiast's library.

Specifications

254 x 204 mm / 8 x 10 in.
304pp four colour throughout
140+ artworks
70,000 words

About the Author

Dr Mark Witton is a palaeontologist and palaeoartist, who obtained his PhD from the University of Portsmouth through his studies of pterosaurs. He works as an artist and consultant in reconstructing extinct animals, and his published titles include *The Palaeoartist's Handbook* (Crowood Press), *Pterosaurs* and *King Tyrant: A Natural History of Tyrannosaurus Rex* (both Princeton University Press). Mark blogs regularly about palaeoart, and his artwork has been displayed in venues including the Natural History Museum, American Museum of Natural History and Yale Peabody Museum.

Blushing with Dinosaurs: Did Dinosaur Herbivores Change Color?

It would be remiss to finish our review of scaly dinosaur paleocolor without mentioning a popular, if entirely hypothetical idea: dinosaurs blushing—that is, pumping blood into the skin of prominent body parts—as signaling displays⁹³.

How the integument of some dinosaur environments precludes blushing

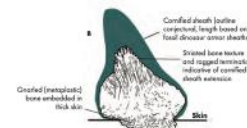
A. Schematic of integumentary structures with cornified sheaths covering the plates and tail scales.
B. Structures like integumentary plates have keratinized sheaths, bloodless, dead tissues that obscure underlying skin and vascular tissues.

Such behaviors are sometimes contextualized as deimatic signaling, those sudden exhibitions of striking color or changes in body size or pose that startle or confuse predators⁹⁴, or else as signals of health and vigor aimed at rivals⁹⁵.

Blushing dinosaurs have appeared in several documentaries where herbivorous species intimidate predators with reddened skin. Memorable examples include the 1999 and 2005 series of *Walking with Dinosaurs*, where *Segnosaurus* and *Triceratops* brighten their dorsal plates and cranial frills (respectively) at menacing carnivores. Carpenter (1998) grounded these speculations in the dense networks of blood vessels found across *Segnosaurus* plates, it being reasoned that increases in blood flow would redden any skin overlying them. Similar structures occur on *Triceratops* frills, perhaps signifying a similar purpose.



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Doubtful deimatism

There is nothing about Mesozoic dinosaur anatomy or physiology that precludes their use of blushing behavior. Indeed, living dinosaurs with reduced feathering around their faces and necks—including some raptors, parrots, chickens, and ostriches—blush their faces and throats when confronting rivals and in fearful situations⁹⁶. However, these changes occur in soft, richly vascularized and exposed skin, while the structures we ascribe to color changing in the likes of *Triceratops* and *Segnosaurus* were almost certainly unlike this. Dinosaur armor was covered with thick, dense cornified sheaths like those of bird beaks and boid horns⁹⁷ and *Triceratops* frills either bore a similar structure⁹⁸ or scales⁹⁹. Thick cornified sheaths are opaque even if not pigmented and, with no vascular components, they are incapable of blushing. There are accordingly no recorded instances of living animals changing the colors of their beaks or horns via blood blushing¹⁰⁰ and, while keratin sheaths can change color—famously demonstrated by the seasonal changes of Atlantic puffin bills—these reflect longer-term variance in carotenoid pigmentation, not blood flow¹⁰¹.

There are additional reasons to doubt deimatic displays in large dinosaurs. In modern times, deimatism is commonest in insects, cephalopods (e.g., cuttlefish, octopus), and amphibians, with just a handful of examples known from mammals and birds. They are mostly associated with species that evade predators by remaining hidden and unmoving, with a sudden and surprising change in appearance considered integral to deimatic antipredatory strategies¹⁰². Such displays are uncommon in larger reptiles, mammals, and birds, perhaps because these animals are relatively conspicuous even when static, and also because they have other, more reliable options of escaping or countering predators. Large dinosaurs almost certainly fall into the latter ecological and behavioral camp.

DINOSAURS | 197

Mysterious "Duckbill:" Enigmatic Color

One of the largest dinosaurs—scaly or otherwise—to provide paleocolor data is a generically unidentifiable hadrosaur from the Late Cretaceous Bearpaw Shale Formation of Montana.

Hadrosaurs are colloquially known as "duckbills" because of their spatulate, toothless bony beaks, although this name is not especially appropriate. Not only did they differ from ducks by possessing dense batteries of chewing teeth, but also the keratin components of their beak tissues were deep and aligned vertically recalling the blades of a garden hoe rather than a spatulate dabbling structure.

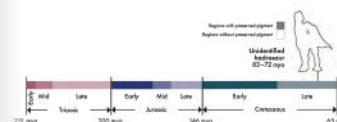
Instead of quaffing soft aquatic vegetation, hadrosaurs were likely capable of tearing through tough, fibrous browse with powerful jaws, rigorous chewing mechanisms, and expansive digestive systems¹⁰³. Their fossil record is among the best of all dinosaurs thanks to thousands of complete or near-complete specimens, many of which occur in vast bone beds¹⁰⁴. Hadrosaurs occurred across much of the world, with only Australia yet to yield their fossils, and they are among the best studied and understood of all dinosaur groups.

Hadrosaurs are also remarkable for their tremendous record of fossilized skin¹⁰⁵. Integumentary remains occur in numerous specimens, some so extensively that they resemble Egyptian mummies with skin draped over bones. These provide terrific insights into hadrosaur appearance by recording their tiny scales (often just millimeters in width) across their bodies¹⁰⁶. Such specimens tease awesome insights into paleocolor but, to date, hadrosaur skin has yielded only paltry color data. Many "mummy" specimens are skin impressions without remnants of organic material, or they were excavated and prepared at times when paleontological methods were, as products of their time, less refined than those of today, ruining their potential for paleocolor analysis.

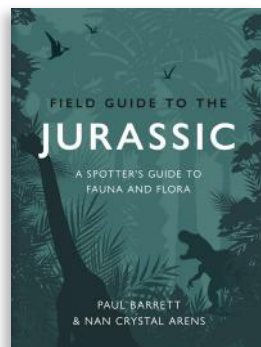
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Hadrosaurid dinosaur
This *Corydonosaurus* skeleton has been named with the gray color uniformly suggested by hadrosaur skin remains from the Bearpaw Shale Formation of Montana. However, imperfect preservation of the remains precludes exclusion of other colors.



DINOSAURS | 197



Field Guide to the Jurassic

A spotter's guide to flora and fauna

The Jurassic lasted from 201 to 145 million years ago. It was a time of great change; the lands of the supercontinent of Pangaea continued to break up, and water flooded the freshly opened spaces in between. Mountains rose on the ocean floor, pushing sea levels higher and creating countless new shallows and sheltered lagoons at the surface. The oceans teemed with life, and on land, the previously hot, dry climate became humid and subtropical.

Field Guide to the Jurassic is the definitive guide to this fascinating time. It details a huge variety of Jurassic fauna and flora, from the T Rex and the Brontosaurus to the various turtles and crocodiles that proliferated, as well as the trees and plants which made up the landscape; conifers, ginkgoes, ferns and more.

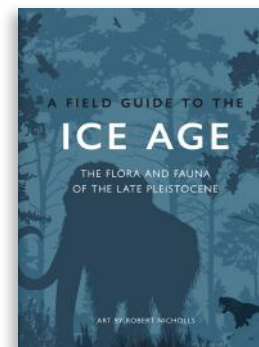
Specifications

280 x 215mm / 11 x 8 ½ in
288 pages
65,000 words
250 images
Four colour throughout

About the Authors

Paul Barrett is Professor of Earth Sciences and a merit researcher at the Natural History Museum, UK. He holds a doctorate in paleontology from the University of Cambridge and has previously lectured on zoology and animal diversity at the University of Oxford. His major research interests are centred on the evolutionary palaeobiology of dinosaurs and other extinct amniotes. The dinosaur *Vectipelta barretti*, remains of which were first discovered in 1993, is named in his honour.

Nan Crystal Arens is Professor of Geoscience at Hobart and William Smith Colleges, USA. After completing her doctorate in biology at Harvard University, Professor Arens has focused her research on the evolution of terrestrial environments and macroevolutionary patterns. She was associate editor of the *American Fern Journal* for five years and has served on the board of trustees for the Paleontological Research Institute since 2019.



Field Guide to the Ice Age

The flora and fauna of the Late Pleistocene

The Late Pleistocene, often known as the last Ice Age, saw the rise of iconic and charismatic species, from saber-tooth tigers to woolly mammoths. It also saw one of the most dramatic mass extinctions in Earth's history, as climate change and the rise of early humans brought an end to the dominance of megafauna across the globe.

A Field Guide to the Ice Age provides a comprehensive overview of the animals and plants that thrived during this era. From big-name megafauna to smaller mammals, birds, insects, plants, and more, the book takes a fully rounded view of the ecosystems of the time, brought to life with artistic recreations of key species.

The final chapter covers the rise of hominids, and the environmental changes that introduced the Holocene, offering a fascinating point of comparison with modern transformation of the natural world.

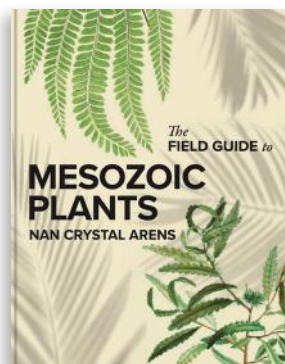
Specifications

280 x 215mm / 11 x 8 1/2 in
272 pages
60,000 words
125 images
Four colour throughout

About the Author and Illustrator

Emily Lindsey is the Excavation Site Director at La Brea Tar pits, California. An experienced paleoecologist, she has conducted fieldwork in the United States, Antarctica, Chile, Guyana, and Ecuador. Her research uses data from field research and large-scale biogeographic analyses to investigate the ecology of extinct mammals, to understand how climate and human activities impact ecosystems, and to predict ecological responses in the face of modern global change. Her current research focuses on understanding the Ice Age ecosystems of North and South America and what led to their collapse.

Gabriel Ugueto is a paleoartist originally from Venezuela, and now living in Florida, USA. While the mainstay of his current creative practice involves working digitally, he is equally comfortable with traditional media (watercolor, oils, color pencil, ink), where his working practice began. Much of his work is inspired, influenced or informed by his love of nature, wildlife and experience as a herpetologist. He has illustrated several books for Princeton University Press, Kane Miller and others.



The Field Guide to Mesozoic Plants

Princeton's bestselling Field Guides have long been the go-to series for fans of the prehistoric natural world, from amateur enthusiasts to professional paleontologists. This dazzlingly illustrated large-format edition profiles hundreds of species of plant, and features cutting-edge research revealing the very latest of what we know about the Mesozoic period.

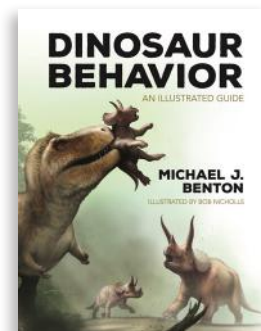
The book features a wealth of breathtaking illustrations, including life studies, scenic landscapes, and detailed sketches of species, bringing to life everything from intricate ferns to the most majestic of megafloa. This comprehensive guide, unparalleled in the depth of expertise it presents, delves into history, biology, paleontology, and more – painting a gloriously vivid picture of what our planet's plants looked like during the age of the dinosaurs.

Specifications

280 x 215 mm (8 ½ x 11 in)
208pp
Four colour throughout
300 images
50,000 words

About the Author

Nan Crystal Arens is Professor of Geoscience at Hobart and William Smith Colleges, USA. After completing her doctorate at Harvard, Professor Arens has focused her research on the evolution of terrestrial environments and macroevolutionary patterns. She was associate editor of the *American Fern Journal* for five years and has served on the board of trustees for the Paleontological Research Institute since 2019.



Dinosaur Behavior

An Illustrated Guide

A fascinating and beautifully illustrated guide to these unique animals from a world-renowned paleontologist, *Dinosaur Behavior* explores the evolution, behavior, physiology, and extinction of dinosaurs. By forensically using the latest technology alongside the study of fossils, experts have revealed further insights into the lives of dinosaurs. Discover more about the mysterious world of these extraordinary creatures.

With stunning, specially commissioned illustrations, this book explains how the dinosaurs lived and courted, fought and fed, signaled and interacted with each other.

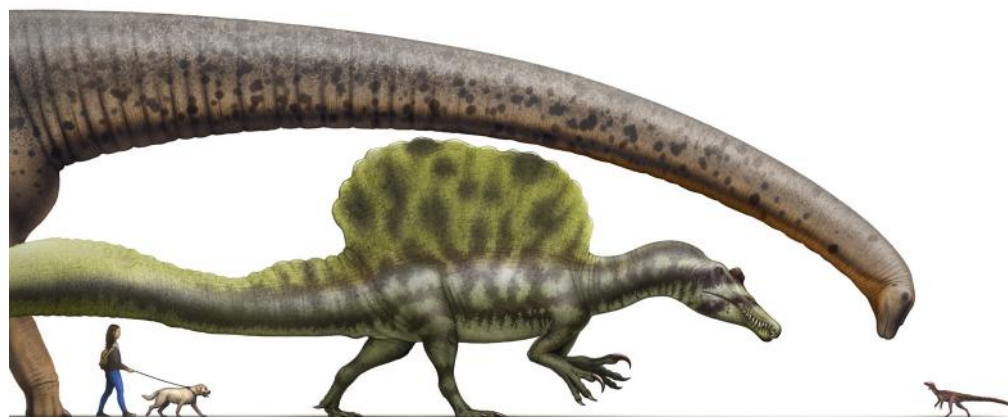
About the Author and Illustrator

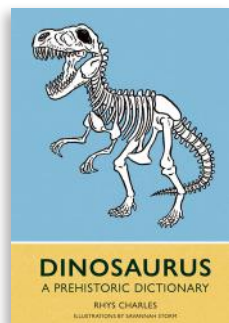
Michael J. Benton OBE, FRSE is Professor of Vertebrate Paleontology at the University of Bristol, UK. He was founder of the Bristol MSc in Paleobiology, which has welcomed 400 students since its foundation. He was elected Fellow of the Royal Society in 2014 for his fundamental contributions to understanding the history of life, especially mass extinctions and origins of major groups.

Robert Nicholls is a paleoartist based in the UK, who has specialised in creating artwork of prehistoric life for over 25 years. Robert uses extensive research based on fossil records, scientific papers, and the anatomy of modern species to ensure his creations are as accurate as possible. His work has appeared in over 40 books, as well museum and wildlife displays across the world, and numerous TV series.

Specifications

280 x 215 mm (8 ½ x 11 in)
224pp
Four colour throughout
150 illustrations
50,000 words





Dinosaurus

A Prehistoric Lexicon

A fresh approach to discovering life in the prehistoric world! Packed with more than 200 terms and phrases that are all beautifully illustrated or annotated in a contemporary style that allows some personality and detail to shine through, *Dinosaurus* explores the science and cultures, together with the crafts, tools, and geological periods that span millions of years.

Detailed anatomy of dinosaurs are included along with pronunciation guides for all the terms, to allow the reader to sound like a paleontological professional.

Specifications

215 x 150 mm (6 x 8 ½ in)

192pp

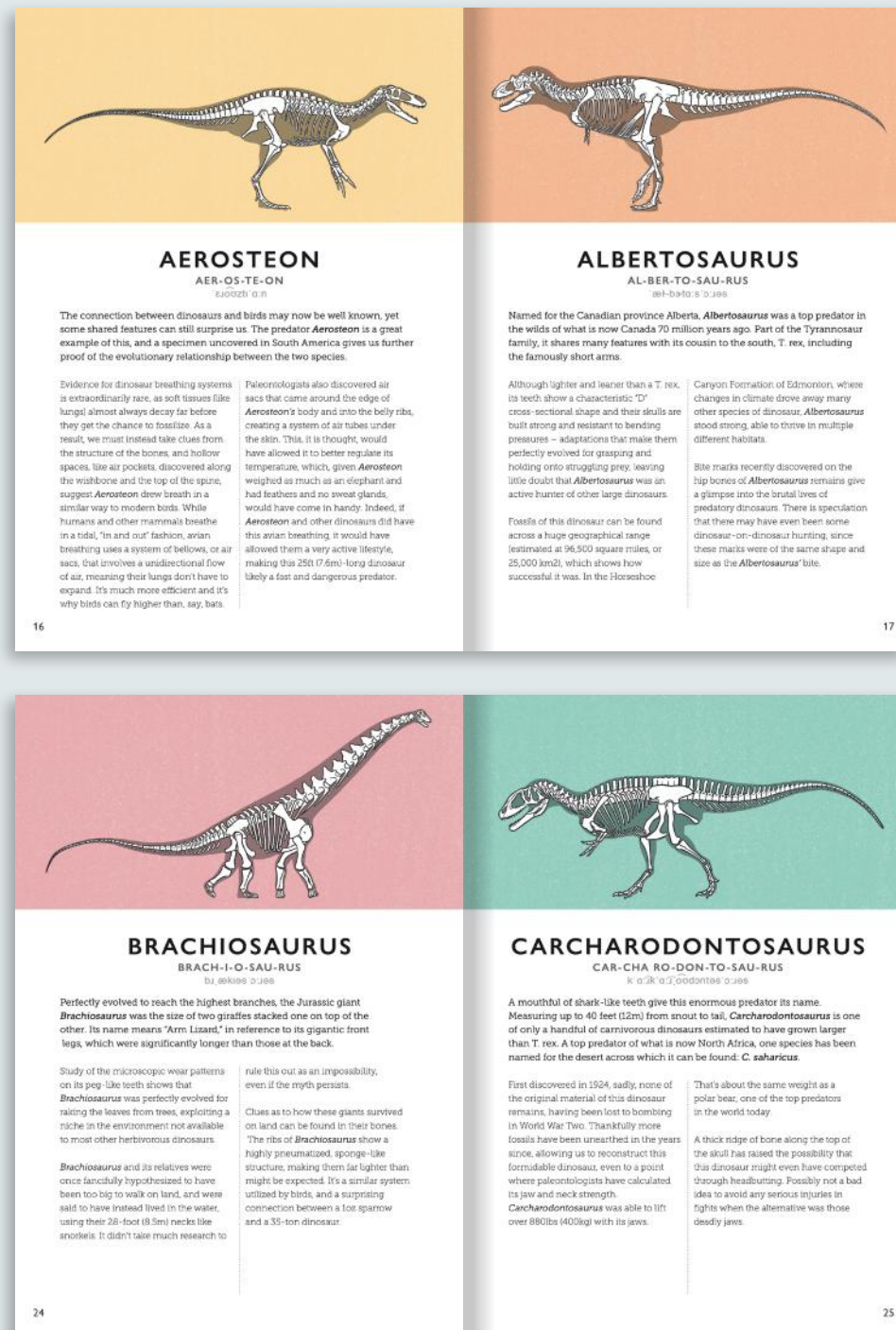
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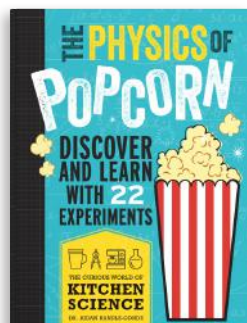
100 illustrations

35,000 words

About the Author

Rhys Charles is a paleontologist and science communicator. As head of the Bristol Dinosaur Project, he works with researchers, schools, and community groups to make the field accessible for thousands of people across the UK. Rhys holds a Masters in Paleontology and Evolution from the University of Bristol, his research specializing in the diversity of crustaceans through the Mesozoic. He has published popular science books with the Natural History Museum and *National Geographic*. He has also acted as lead paleontological consultant for large-scale events at UK tourist attractions, involving full-sized animatronic and LEGO dinosaurs.





The Curious World of Kitchen Science

SERIES

The Curious World of Kitchen Science is part of a series of four books that explore the key principles and practice of everyday science by using analogies, experiments, and research with food and drink in the home kitchen environment.

Each title covers a branch of science and demonstrates its principles through applied science offering a unique, fun, and interactive approach to learning for both teenage and adult readers. Each title in the series covers three core elements of scientific learning: discovery, learning, and experiments.

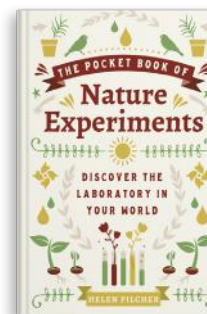
- The Physics of Popcorn
- The Maths of Milkshakes
- The Biology of Bananas
- The Chemistry of Cola

About the Author

Katie Steckles is a mathematician based in Manchester, UK, who delivers talks, workshops, and mathematical events all over the UK, on YouTube, and on TV and radio. She writes mathematical puzzles and articles for books, magazines, event programs, and several blogs. She's also provided mathematical content and proofreading for several recent popular math books. In 2016 she won the Joshua Phillips Award for Innovation in Science Engagement, and often runs large-scale projects to get people engaged with math all over the world. Katie enjoys solving the Rubik's cube, and baking things shaped like math symbols.

Specifications

210 x 160 mm (6 ¼ x 8 ½ in)
160pp
Four colour throughout
60 illustrations
30,000 words



The Pocket Book of Nature Experiments

Discover the Laboratory in Your World

A charming little book packed with over 80 experiments for the whole family to discover, learn, and enjoy.

From testing soil to enjoying a “seed safari,” the book reveals the hidden science at work in nature.

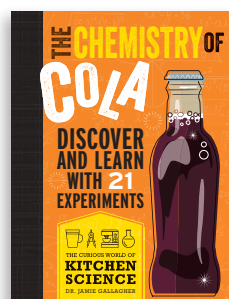
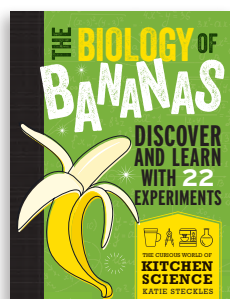
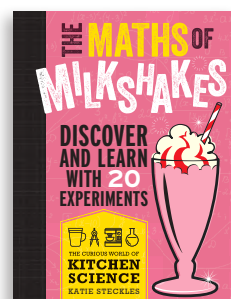
Designed to appeal to a broad, family audience to help develop young people's learning, health, and wellbeing.

Specifications

215 x 150 mm (6 x 8 ½ in)
192pp
Four colour throughout
100 illustrations
44,000 words

About the Author

Helen Pilcher is a science writer, presenter, and performer based in the UK. She has written for *Nature*, *The Guardian*, *BBC Science Focus*, and the *New Scientist*. She has a PhD in Cell Biology from the London Institute of Psychiatry and ran the Royal Society's Science in Society Programme before becoming a full-time writer. Her previous books include *Bring Back the King: The New Science of De-extinction*, *Mind Maps: Biology*, and *The Pocket Book of Backyard Experiments*.



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