

life without oxygen on the planet, of a time when only bacteria lived here, in rich and unusual diversity.

The evidence of early microbial ecosystems found at the Gunflint Chert includes filamentous, spherical, and star-shaped bacteria, as well as the curious and graceful umbrella-shaped *Kakabekia* bacteria, with its spheroidal bulb, slender stipe, and umbrella-like crown. All the fossils in the book are depicted in a combination of photographs and drawings.

The fossils at Mistaken Point on Newfoundland's Avalon Peninsula were discovered in 1967 by Shiva Balak Misra, an Indian graduate student studying at Memorial University. They help fill a critical gap in the history of life on Earth: the span between the microbial ecosystems of the Precambrian era, and the animal ecosystems of the Phanerozoic.

Mistaken Point biota range from disc-like *Aspidella*, to frond-shaped *Charnia* and bush-shaped *Bradgatia*. One of the most unusual shapes is *Triforillonia*, with its three-lobed body and rounded lobes radiating from a central rosette, possibly a holdfast or polyp-like

organism. The particularly rich array of fossils preserved at Mistaken Point — a census population of thousands of individuals — offers valuable snapshots of living communities at the moment they were smothered by volcanic ash.

Fossil Ecosystems of North America is a fascinating book, easy-to-read, with highly comprehensible scientific explanations, extensive details, and helpful maps, photographs and drawings. It is, essentially, a riveting mystery story about life on this planet, filled with cataclysmic events, extinctions, takeovers, and human quests for clues and explanations, often involving conflict and heated debate. At another level, *Fossil Ecosystems of North America* is a science book for students and an interested lay readership. At yet another level, it is an unusual and informative "time travel" guide. Three books in one — a valuable addition to the bookshelves of any naturalist curious about deep time.

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Headless Males Make Great Lovers and Other Unusual Natural Histories

By Marty Crump. 2005. University of Chicago Press, Chicago, Illinois, USA. 199 pages. 25.00 USD Cloth, 14.00 USD Paper.

Marty [Martha] Crump, herpetologist, author of *In Search of the Golden Frog* (University of Chicago Press) and *Amphibians, Reptiles, and Their Conservation*, has compiled a remarkable collection of capsule glimpses of diverse natural history behaviour. Five section headings set the text style: Ain't Love Grand, The Mamas and the Papas, Eat to Live and Live to Eat, Don't Tread on Me, Ya Don't Say, but the serious reader should not be put off by this flippant approach — its aim is merely to grab the attention of readers who would not normally pick up a natural history book. The science is authoritative and reliable.

The detailed documentation of the scientific literature, on which the text is based, is contained in a 10-page concluding section arranged by topic with similarly innovative headings: Rampant Machismo, Come Up and See My Etchings, Sneakers and Deceivers, Survival of the Pampered, Nests Aren't Just for the Birds, Babies on Board, A Pouch Full of Miracles, Stomping for Worms, A Team Effort: How (Some) Ants Get Food, Chameleons of the Sea, Tears of Blood, Casting the Insides Outside, Spit 'n' Spray, Living

Flashlights, Rapturous and Rapacious Reptiles, Smelling is Understanding, Love Potion Number Nine, It Pays to be Neighborly. This is followed by a seven-page index of organisms in the text.

This is a book ideally suited for idle moments or bedtime reading, the entries are as short and punchy as the section headings. The multitude of observations are gleaned and summarized from an amazingly vast diversity of research by ethologists and naturalists around the world. The title comes from the generally well-known mating of certain spiders where the female decapitates the male while he is still in the process of copulation. But the text covers a vast array of other behaviours, such as the stomping of Wood Turtles to bring the earthworms cherished as food to the surface. It is a remarkable testament to the seemingly endless variety of life styles and unique behavioural innovations present in the animal world, and is highly recommended to all naturalists for both education and amusement. The text is enlivened by sketches by Alan Crump.

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State of North America's Birds of Prey

By Keith L. Bildstein, Jeff P. Smith, Ernesto Ruelas Inzunza, and Richard R. Veit. Nuttall Ornithological Club and The American Ornithologists' Union, Series in Ornithology (3) 2008. Softcover. 466 pages, 98 figures, 42 tables, 6-page glossary.

This is the third volume in a promising and commendable new series of ornithological publications,

each appreciably larger than the AOU Monographs of long standing.

The book begins with a succinct history of raptor conservation by senior author Keith Bildstein. He tells the history of bounties as a method of raptor control. Between 1917 and 1952, Alaska paid bounties ranging from 50 cents to two dollars on over 128 000 Bald