

photographs, supported with well-written text. The author often uses the correct scientific term but adds a simple explanation in parentheses [phycoerythrin (algal red pigment)] making the text easy to follow.

This book brings back memories of many old “friends.” The Moon Jellies and Beroe’s Comb Jellies I saw floating off shore, the limpets, sea-snails and whelks in the tide pools and the Knotted Wrack cascading off the rocks. It reminded me of one of the most fascinating presentations I ever experienced. It was an explanation of the sex life of seaweed given in a swirling rock pool just behind the Peggy’s Cove lighthouse. While the author does not give this complex story *per se* there are hints in some of the algae accounts.

The book includes about 225 common species. I estimate that if you walked for an hour along a typical Nova Scotia beach you could find 20 to 30 species with ease. As the book is only 21.5 × 14 × 1.5 cm it would be easy to carry along. For the Common Periwinkle [a very tasty little beast] the photographs give a good sense of size, colour, shape and variability. These are easy to compare with the those of the Smooth and Rough Periwinkle. Nearby you might find a beige “seaweed” made of felt. Look up Leafy Bryozoan. Push through the wrack and you will likely find a few scud, little shrimp-like critters. Keep going and you will surely find some young Rock Crabs or one of the

hermit crabs. Now I have an urge to get to a beach and try poking around with this book in hand. The trouble is I am off to the Pacific next.

The author gives a brief overview of various intertidal habitats, such as sand beaches, mud flats, rocky shores and other micro-habitats. He also includes a guide to the best places in Nova Scotia, Prince Edward Island, New Brunswick, Newfoundland, and Labrador, Maine, New Hampshire and Massachusetts. While the locations given are very good almost anywhere along the coast will have a good range of species.

As much as I enjoyed this book, there is one disappointment. The author did not include any plankton. The zooplankton from the Bay of Fundy are among the most beautiful creatures on earth. Surely some one can buy one of the new digital microscopes and create a book on this neglected part of wildlife.

For \$20 this book is a great buy. Useful and useable, it will be an asset to any naturalist who wants to understand shore life in full. Better yet take a child along and get them interested – tidal pool creatures are easier to observe than flying birds or diving mammals.

A visit to Sept’s website at <http://www.septphoto.com> is also worth the effort.

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## Turtles of the United States and Canada

By Carl H. Ernst and Jeffrey E. Lovich. 2009. Second edition. Johns Hopkins University Press, 2715 North Charles Street, Baltimore, Maryland 21218-4363. 827 pages. 95 USD.

The first edition of *Turtles of the United States and Canada* by Carl Ernst, Jeffrey Lovich, and the late Roger Barbour was published in 1994. With its detailed species accounts it became the definitive reference on the turtles of North America. Is this new edition required? Absolutely. The first edition cited approximately 3000 publications on turtles, while this new edition references more than 5000 – an indication of the explosion in scientific research on turtles in the last 15 years.

The format is almost identical to the previous edition. One change is that each species account begins with an introductory paragraph, putting the species into context. Information on the species is then provided in the following categories: Recognition, Karotype, Fossil Record, Distribution, Geographic Variation, Confusing Species, Habitat, Behavior, Reproduction, Growth and Longevity, Diet and Feeding Behavior, Predators and Defence, Populations, and Remarks. Each species account is accompanied by a shaded distribution map and colour photos of each species (generally one shot in nature, one of the plastron and

one of a hatchling). One unfortunate change to the new edition is that species accounts no longer always start on a new page. The species accounts within a given genus begin immediately after the previous species account ends. One change not made from the last edition is the content of the index, which is only indexed on the names of the turtles. Want to know which species have been reported killed by boat propellers or have experienced necrotic shell diseases? Good luck. You’ll have to read the population section of every species account.

Any volume attempting to summarize such a huge amount of scientific literature is bound to include some errors. There are enough careless errors to make one want to double check any unlikely “facts” in the book. For example, it is stated that a Snapping Turtle died of *hypothermia* before nesting, when it should be *hyperthermia* (page 117). The authors also claim (without any supporting reference) that the diminutive Spotted Turtle can lay up to 14 eggs (page 218). I can find no evidence of a Spotted Turtle laying more than 7 eggs and the average is much below this. I may be

biased in my opinion of the authors' carelessness as they magically translocated the study site in a paper by me from Ottawa to Quebec City (page 219).

Also not been changed from the previous edition, is the format of the range maps. While the map of continental USA is professional-looking, many of the borders of Canadian provinces still look as if they were quickly scrawled in with a black marker. More importantly, the content of the Canadian distribution is not always accurate. For example, the map of the Snapping Turtle clearly indicates it is found no farther west than Saskatchewan (which is basically accurate), yet on the same page, the text states it is found as far west as Alberta. The map for the Spotted Turtle omits all of eastern Ontario from the distribution, but includes Quebec, despite the text correctly stating that

the species is no longer known to occur in that province. And the map for the Stinkpot omits all of eastern Ontario. Canadian content is also neglected in the conservation section. Species listed by the IUCN or CITES or the USA's Endangered Species Act are itemized in an extensive table, but those listed by the Canadian Species at Risk Act are overlooked completely.

Despite my complaints, this second edition is an impressive accomplishment. Summarizing so much information is a daunting task and this book provides an amazing gateway into the vast body of scientific literature on North American turtles. Just keep in mind the old adage: don't believe everything you read.

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### The Link: Uncovering Our Earliest Ancestor

By Colin Tudge (with Josh Young). 2009. Little, Brown and Company (a division of Hachette Book Group, Inc.), 3 Centre Plaza, Boston Massachusetts 02108 USA. 272 pages. 28.99 CAN.

Every scientist has a dream of making a big discovery with great impact on his or her field of research. Perhaps no better is this epitomized by a palaeontologist discovering a pristine fossil with possibly grand importance on the evolution of animal life and bearing on our own evolution as human beings. In this book, Colin Tudge describes such a finding in "Ida", a forty-seven million-year-old specimen and the most complete primate fossil ever found. He aims to convey the excitement of this most unusual fossil discovery and describe the importance of the specimen to our understanding of primate evolution. Unearthed by a private fossil collector, the specimen (given the scientific name *Darwinius masillae*) was unveiled to Norwegian palaeontologist Jørn Hurum and later sold under much secrecy to Oslo's Natural History Museum, where it is currently on display.

The book starts off in prose style, as Tudge tells a story of what might have happened as Ida perished long time ago in Eocene times, drowning in a lake with unusually fine conditions for specimen preservation. The site is now known as the Messel Pit, a superb location for fossil hunters just 35 km southeast of Frankfurt, Germany. Once the prosaic tale of Ida is told, the book transforms into a more common form of popular science writing, including detailed descriptions of the specimen itself. However, there is only so much you can tell about a fossil specimen. Tudge expands his book by rather nicely weaving in other aspects of interest, including palaeontology, climate history, the

rise of mammals, primate evolution, and ultimately our own evolution as humans. The result is a rather nice glimpse into how evolutionary science, through the addition of a myriad of small puzzle pieces, aims at an overall understanding of the evolution of life on this planet. However, the book feels repetitive at times, and too much emphasis is spent on how fantastic this particular fossil find is. No doubt Ida is a valuable specimen, but as the book was released immediately following the scientific publication describing the find (Franzen et al. 2009), it is simply too early to tell just how valuable; scientific progress is made only via the continuous critical evaluation of new evidence against old, not through self-proclaimed excellence. Critical readers with a background in science will therefore dislike the salesmanship flavour of the *The Link*. Indeed, Jørn Hurum decided to orchestrate launch of the fossil in a combined scientific and public event. On the other hand, readers with a non-professional interest in science and palaeontology in general may enjoy the book as a fascinating story, especially as it touches upon our own history.

#### Literature Cited

Franzen J., P. Gingerich, J. Habersetzer, J. Hurum, W. von Koenigswald, and B. H. Smith. 2009. Complete primate skeleton from the Middle Eocene of Messel in Germany: morphology and paleobiology. *PLoS One* 4(5): e5723. doi:10.1371/journal.pone.0005723.

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