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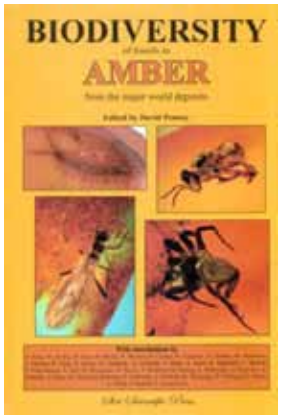


Biodiversity of Fossils in Amber from the Major World Deposits, 2010, by David Penney, ed., Siri Scientific Press, Manchester, UK, 304 p., ISBN 978-0-9558636-4-6. Price £85.00

While amber inclusions were noted as early as the year 100 by Pliny and marveled at by his compatriots, there has probably been no period since then that equals the present in the intense and often competitive study of amber (amberology). It is amazing how rapidly research on amber has progressed during the past two decades, including the discovery of new deposits and the reinvestigation of previously known deposits. It is now appreciated not just for its beauty as a gemstone, but for the life forms it contains and how these can be used to reconstruct ancient ecosystems.

Amber occurs in lacustrine and terrestrial Cretaceous and Tertiary deposits of all ages and in all parts of the world. This volume provides a synopsis of 13 amber deposits from around the world, including Dominican amber from the Dominican Republic (Penney); Baltic amber from northern Europe (Weitschat and Wichard); Bitterfeld amber from Saxony, Germany (Dunlop); Cape York amber from Queensland, Australia (Hand et al.); Rovno amber from the Ukraine (Perkovsky et al.); Oise amber from Le Quesnoy, France (Nel and Brasero); Canadian amber from Alberta (McKellar and Wolfe); Raritan amber from New Jersey (Grimaldi and Nascimbene), Charentese amber from the Charentes region of France (Perichot et al.), Burmese amber from Myanmar (Ross et al.), Spanish amber from several localities in Spain (Peñalver and Delclòs), and Lebanese amber (Azar et al.).

Each chapter, written by those familiar with that particular amber source, follows a standard outline: Introduction, geological setting, amber collection, paleohabitat, tree source, age, physical and chemical properties, diversity of life, and references. Most chapters end with a list of the arthropod fauna recovered from that particular amber deposit, usually at the family level, but sometimes at the species level. The work includes color photos of inclusions and a brief introduction to amber studies.

Since the book is stated to cover the biodiversity of fossils, it is surprising that nonarthropod invertebrates, vertebrates, and plant species reported from the various amber sources are not included in the lists at the end of the chapters. One serious misinterpretation in the chapter on Burmese amber is the conclusion by the authors that the fruiting bodies of the club fungus (*Palaeoclavaria burmitis*) are actually bivalve mollusk crypts (Fig. 1). There is no question about the fungal status of *P. burmitis* and its placement in the Aphyllophorales since mycelium, basidia, basidiospores and sporocarps are clearly illustrated in the original description. It is impossible to elucidate the total biodiversity found in any site, especially a fossil one. The longer the deposits are studied, the more life forms that will be discovered, but the lists can never be complete.

This work provides a very useful synopsis of selected amber deposits, even though some of the amber localities included may not yet be considered to be major world deposits.

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Fig. 1. Fruiting bodies of the club fungus, *Palaeoclavaria burmitis,* in Burmese amber. The sporocarps have been mistaken for boreholes (crypts) of bivalve mollusks (photo by G. Poinar).