Science depends on contemporary events and ideas. History of times studied is of great relevance to create new knowledge. Palaeosciences hold a great history with contributions by luminaries of scientific research. Modern times are witnessing an emergence of holistic paradigm indicating inevitable co-operative world. The development of palaeophyto-science during the 19th century and its growth through times stand as a testimony to changing necessities. Charles Darwin was the first to introduce historicity into science, with evolutionary biology taking prime agenda for modern thought process. Palaeophyto-science occupies a unique place in earth system sciences through natural archives diarized in the sedimentary rocks. Past events and processes have been scientifically analyzed using fossils which provide an evidence of existence of life and changing climate. Proliferation of disciplines in the 20th century and subsequent need to bridge them lead to 21st century unsung agenda. Sequence of developments in palaeophyto-science with approaches like traditional/conventional/contemporary/integrative/interdisciplinary are traced and impact on Indian palaeophyto studies are discussed. New findings of phyto signatures and impact of technology on the way science pursued and inevitability of globalised world to transcend disciplinary boundaries is discussed.