**CONTRIBUTIONS TO THE PALEOGENE LICHEN FLORA OF EUROPE: CRUSTOSE AND FRUTICOSE LICHENS**

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Paleogene Baltic and Bitterfeld ambers are currently the most important source of Cenozoic fossil lichens. The lichen assemblage suggests that the climate of the European amber forests 41−23 million years (Ma) ago was relatively humid and most likely temperate. In addition to the climatic inference, the lichen fossils reveal information about the divergence and age of lineages and the interactions in the past epiphytic communities. As most crustose lichens are relatively obscured and closely attached in their substrate, calicioid taxa (*Calicium*, *Chaenotheca*) were previously the only crustose lichens known as amber inclusions. However, our recent survey demonstrated that further crustose lichens are preserved in European Paleogene ambers. Three of the fossil crustose lichens from Baltic (41−34 Ma) and Bitterfeld (23 Ma) amber belong to the extant genus *Ochrolechia* (Ochrolechiaceae, Lecanoromycetes) and one possessed conidiomata similar to those produced by modern fungi of the order Arthoniales (Arthoniomycetes). Most intriguingly, two of the fossil *Ochrolechia* specimens host lichenicolous fungi of the extant genus *Lichenostigma* (Lichenostigmatales, Arthoniomycetes). The finding confirms that *Ochrolechia* and *Lichenostigma* already diversified in the Paleogene. Our study of fruticose lichens from Paleogene amber revealed diverse finely pendulous and more robust morphologies. Among them, the genus *Usnea* is identifiable from late Eocene Baltic amber, based on general morphology and annular cortical fragmentation. The unique type of cortical cracking suggests the presence of a central cord that keeps the branch intact even when its cortex is split into segments. This evolutionary innovation has remained unchanged since the Palaeogene and likely contributed to the considerable ecological flexibility that allows *Usnea* species to flourish in a wide variety of ecosystems and climate regimes.

**TITLE (TIMES NEW ROMAN, SIZE 14, UPPERCASE, except scientific names, which should in italic and not all in caps, e.g. *Cora reticulifera)***

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**INTERNATIONAL ASSOCIATION FOR LICHENOLOGY: WELCOME LETTER**

Marcela Cáceres1\*; Adriano A. Spielmann2; Luciana Canêz2; Natália Koch2; Manuela Dal Forno3

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It is our great pleasure to welcome you to the 9th International Association for Lichenology Symposium (IAL 9), which will be held from August 2 to 7, 2020 in Bonito, Mato Grosso do Sul, Brazil. I’d like to personally welcome each of you to the most important event for the Lichenological community. It’s an exciting time for thestudy of lichensas we are confronting a time of many changes and we’re meeting these changes during a time of larger nation-wide and global change as well. This is the first time our conference will be held in the Southern Hemisphere and specifically in Latin America. The world of Lichenology is an exciting area in which to work, and we’ll continue to meet and bring inspired people together in forums like this, to ensure our conferences remain at the cutting edge. Throughout this conference, I ask you all to stay engaged, keep us proactive and help us shape the future of Lichenology. I’d like to thank each of your for attending our conference and bringing your expertise to our meeting. You, as organization leaders, have the vision, the knowledge, the wherewithal and the experience to help us pave our way into the future. We could not accomplish what we do without your support and leadership. Also you, dear students, are truly our greatest asset today and tomorrow. My personal respect and thanks go out to all of you. Welcome to Brazil! Welcome to Bonito! We look forward to seeing you here in 2020. Funding: NK (FUNDECT, UFMS), MDF (Peter Buck Fellowship, NMNH-SI).