



First record of *Harpagomyces* (*Eumycota, incertae sedis*) in Cenozoic sediments, lower Colorado Basin, Argentina

A. L. FERNÁNDEZ¹, S. C. GRILL¹, K. A. SEIFERT², V. BIANCHINOTTI³ and G. A. MARTÍNEZ⁴

Harpagomyces Wilcz (*Eumycota, incertae sedis*) was registered in stratigraphic sections associated to archaeological sites in the Colorado Basin (Buenos Aires, Argentina). Since its description, no other record of this species appeared in literature, being the first appearance in the fossil record. Originally isolated from wastes, it was illustrated as having irregular structures with hook-like appendages that were described as conidia. We found simple and ramified filaments of thick-walled, pale brown, verrucose, cylindrical to somewhat doliform cells. Some cells bear one, two or rarely more lateral appendages, which were pale, thin-walled and smooth, taper to apex, and ended in two or three forked and pointed arms. The collected material agrees fairly well with *Harpagomyces lomnickii* Wilcz, recovered from late Pleistocene/Holocene La Salada and El Tigre archaeological sites. La Salada section is an outcrop where eolic sediments alternate with pedogenetic and lacustrine levels, the archaeological findings are restricted to the last 20cm section from the surface. In this sequence, *Harpagomyces* was recorded in sediments dated as old as 3564 years BP (OCR) at 72.5cm depth from the top. There, the pollen association registered corresponds to halophytic steppe with influence of the ecotone and/or the Patagonian steppe. El Tigre section consists of an alternation of eolic and fluvial facies associated with terraced levels and flood plains, involving the last 3000 cal. AP (OCR). *Harpagomyces* was registered in 12 palynological samples (181-1627 years BP, OCR) between 1.25cm and 2.05cm from the surface. The pollen association registered in this interval corresponds to halophytic steppe.

1 Instituto Geológico del Sur (INGEOSUR-CCT Bahía Blanca-CONICET), Departamento de Geología, San Juan 670, (B8000ICN) Bahía Blanca, Argentina. ana.fernandez@uns.edu.ar, sgrill@criba.edu.ar

2 Research Scientist, Agriculture and Agri-Food Canada. 960 Carling Av. Ottawa, Ontario, Canada. keith.seifert@agr.gc.ca

3 Centro de Recursos Naturales Renovables de Zona Semiárida (CERZOS-CONICET), Universidad Nacional del Sur, Camino La Carrindanga Km 7, Bahía Blanca, Argentina. vbianchi@uns.edu.ar

4 CONICET- Investigaciones Arqueológicas y Paleontológicas del Cuaternario Pampeano (INCUAPA), Facultad de Ciencias Sociales, Universidad Nacional del Centro de la Provincia de Buenos Aires, Av. Del Valle 5737, (B7400JWI) Olavarría, Argentina. gmartine@soc.unicen.edu.ar