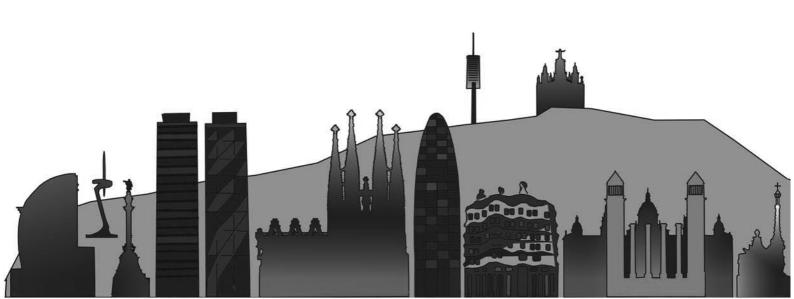
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Mediterranean Palynology APLE-GPPSBI-APLF Symposium Barcelona, 4-6 September 2017

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Title: Mediterranean Palynology Symposium 2017. Abstracts Book

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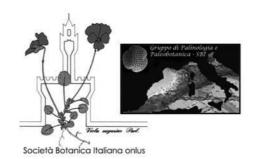














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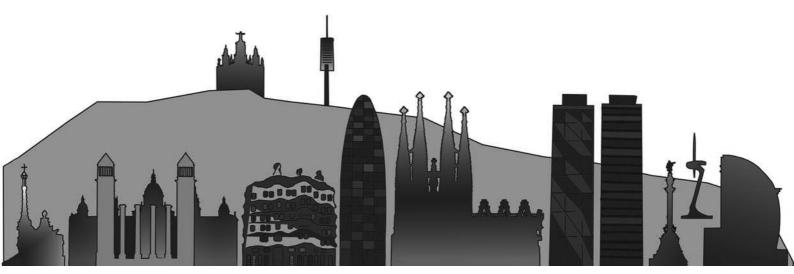














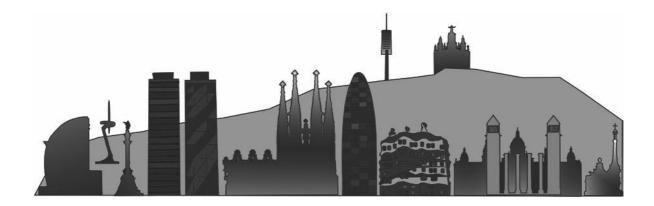
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Asociación de Palinólogos de Lengua Española (APLE) Gruppo di Palinologia e Paleobotanica della Società Botanica Italiana (GPPSBI) Association des Palynologues de Langue Française (APLF)

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Print: © La Imprenta Comunicación Gráfica S.L. www.laimprentacg.com

ISBN: 978-84-945378-7-5 (Book) ISBN: 978-84-945378-8-2 (e-Book)

Available in

http://lap.uab.cat/aerobiologia/es/bibliography#organizedcongresses

Suggestion for citation:

Entire volume:

De Linares C. & Belmonte J. (Eds.). 2017. Mediterranean Palynology Symposium 2017. Abstracts Book. Barcelona, Spain. ISBN 978-84-945378-8-2.

A contribution:

<u>Pacini E.</u> 2017. Pollen developmental arrest and ecophysiological consequences. In: De Linares C. & Belmonte J. (Eds.). 2017. Mediterranean Palynology Symposium 2017. Abstracts Book. Barcelona, Spain. pp. 30. ISBN 978-84-945378-8-2.

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Aerobiological comparison between Plasencia and Cáceres (SW Spain)

Monroy-Colín A.¹, Tormo-Molina R.¹, Fernández-Rodríguez S.¹, Silva-Palacios I.¹, Maya-Manzano J.M.¹, Gonzalo-Garijo A.²

¹University of Extremadura, Spain; ²Infanta Cristina University Hospital, Badajoz, Spain bioamc@outlook.com

Two cities in Extremadura region (SW of Spain) as Cáceres (CC) and Plasencia (PL) have been aerobiologically monitored. Surroundings from CC were mainly cereal crops and some holm oak 'dehesas' and from PL were mainly cork oak forests, olive crops and river bank woods from a mountainous landscape. The aim of this work is to develop a first comparison between the two sites using aerobiological data.

Aerobiological sampling was performed using Hirst volumetric sampler for one whole year (2016). Samplers were located in CC on the terrace at the third floor of the School of Technology building at the University of Extremadura campus and in PL on the terrace at the second floor of the hospital Virgen del Puerto building. The two places were separated by 71 km in straight line with similar altitude a.s.l. (CC 457 m - PL 465 m). Meteorological data were provided from the government meteorological agency (AEMET).

Meteorological data for the analyzed year showed that rain was lower in CC (606 mm) than in PL (765 mm). Average temperature was 0.7°C lower in CC (16.7°C) than in PL (17.5°C). Annual average total pollen concentration was lower in CC (80 pollen grains m⁻³) than in PL (117 pollen grains m⁻³). Most of these differences were due to *Quercus* pollen, much more abundant in PL (39 pollen grains m⁻³) that in CC (18 pollen grains m⁻³). Moreover, Poaceae pollen were also more frequent in PL (40 pollen grains m⁻³) than in CC (34 pollen grains m⁻³), the same with *Olea* pollen in PL (12 pollen grains m⁻³) and in CC (8 pollen grains m⁻³). Nevertheless, *Platanus* pollen was better represented in CC (4 pollen grains m⁻³) than in PL (2 pollen grains m⁻³). Similar values were reached for the rest of the pollen types except for *Alnus* pollen, with higher concentration in PL (3 pollen grains m⁻³) than in CC (1 pollen grains m⁻³). Seasonal distributions were similar in both places, with maximum concentrations in May, with total pollen peak reached the same day, 21 May (CC 1117 pollen grains m⁻³ - PL 1581 pollen grains m⁻³).

Seasonal pollen distribution in CC and PL was similar, with differences in total pollen concentrations due to the abundance of different pollen sources. In CC the influence of ornamental trees as planes were higher than in PL. Notwithstanding, in PL pollen sources from surrounding oak forest and the olive crops close to the sampler were responsible for the higher values found.