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Ndeye Coumba Bousso, Patrice Brehmer, Valérie Stiger-Pouvreau, Maxime Gautier, Cheikhou Kane, Mamie Souadou Diop, M Faye, Saliou Faye, Bocar Sabaly Baldé, Amidou Sonko, et al.

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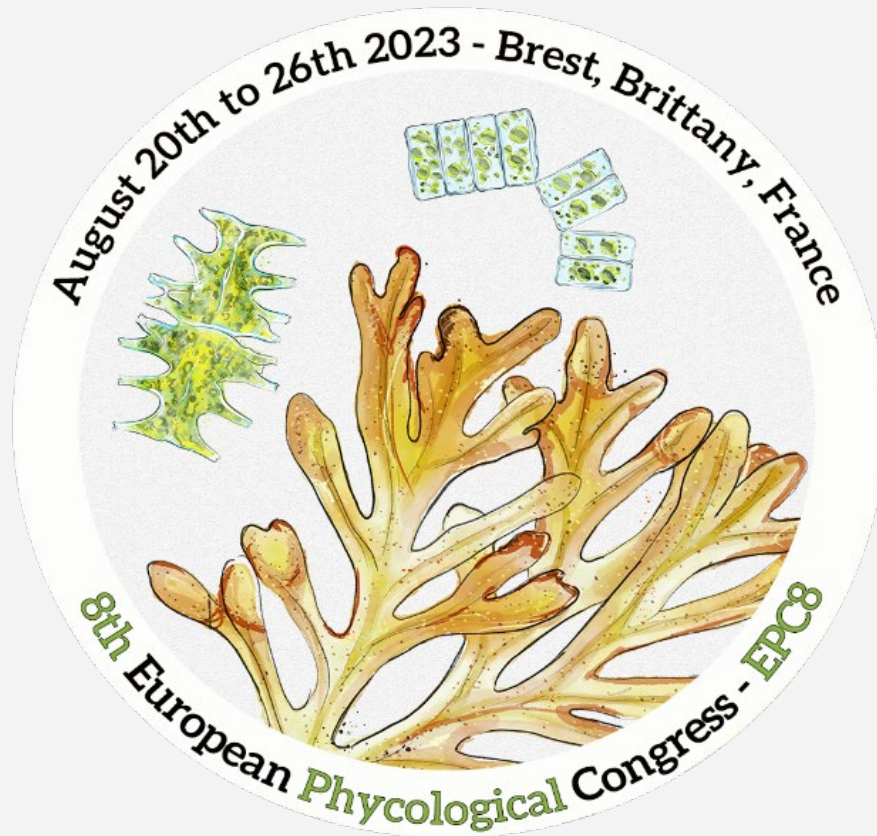
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“Scientific Opportunities for a Global Algal Revolution”

Program and Book of Abstracts

Edited by Solène Connan, Emeline Creis, Bertrand Jacquemin,
Gabriel Markov and Philippe Potin

FEPS

FEDERATION OF EUROPEAN PHYCOLOGICAL SOCIETIES



Brief Statement Organizers

When we commenced organising EPC8 we still faced the real possibility that the pandemic could throw the organisation off the rails. Nonetheless, we decided against ‘hybrid’ because four years after EPC7-Zagreb it would be great to finally meet face-to-face again. E-meetings save costs and time and produce less CO₂, but who is not tired of meeting on a computer screen?

We organised the program with 20 symposia in six overarching themes, covering all that keeps us busy. All symposia accommodate micro- and macroalgal presentations to inspire you with research adventures including those in ‘the other phycological denomination.’ Since all of you teach, reach out, and publish, we included symposia about those topics as well. Each conference day has four parallel symposia, from different themes, so as to minimise your choice-stress. Since, posters are integral to the information exchange, we put the poster sessions centre-stage and have devoted plenty of time to them.

We went out of our way to ensure gender balance and diversity. We invited symposium conveners from all over Europe and beyond, and we asked them to consider especially ‘young, rising stars’ as keynote speakers. Young scientists are our investment in the future of phycology.

Enjoy EPC8 and Brittany!

Inka Bartsch, Solène Connan, Philippe Potin & Wiebe Kooistra

The unusual massive beaching of *Sargassum* around Dakar Peninsula (Senegal, Africa) in autumn 2022: opportunity or threat

Bouso, N.C.^{1,2,3*}, Brehmer, P.³, Stiger-Pouvreau, V.⁴, Gautier, M.⁴, Kane, C.¹, Diop, M.S.^{2,3,5,6}, Faye, M.¹, Faye, S.², Balde, B.S.², Sonko, A.³, Diedhiou, F.², Quack, B.⁶, Diadhiou, H.D.⁷, Fricke, A.⁸, Aroui Boukbida, H.⁹, Weinberger, F.⁶ & Ndiaye, W.²

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Huge strandings of holopelagic *Sargassum* along the Senegalese coast were observed throughout the summer of 2022. The unusual nature of such stranding has mobilized the community, sparking questions from civic society and industrialists. We report on this *Sargassum* arrival to participate in a global scientific endeavour and to inform local stakeholders. Volunteers reported stranding from north to south of Senegal, harming the coastal life, including turtle fatalities. We analyzed the stranded biomass for taxonomic identity and heavy metal concentrations (As, Cd, Pb and Hg). We differentiated the *Sargassum* collected into six morphotypes based on morphological details. We noticed the presence of the species *S. natans I*, *S. fluitans III* and *S. natans VIII*. Chemical nuclear magnetic resonance (HR-MAS NMR) fingerprintings were obtained to compare morphotypes and sampling sites. In comparison to previous studies throughout the tropical Atlantic Ocean, preliminary analyses revealed low quantities of arsenic and high concentrations of cadmium and mercury in the thalli. For all these heavy metals except lead, the concentrations are higher in *S. natans I*. Arsenic concentrations were variable between sampling sites but lead and mercury concentrations were spatially homogeneous. For agricultural purposes, the maximum values for As and Cd were above some recommended limits. For animal feed, all As concentrations were below the permissible level (40 ppm EU, European Union). Additional analyses are underway to validate these first results and study the biochemical composition of the samples.

Holopelagic *Sargassum* along a degradation gradient: variation in biochemical composition and impact on potential valorization

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