SUPPLEMENTARY INFORMATION

How do certain atmospheric aerosols affect Cu-binding organic ligands in the oligotrophic coastal sea surface microlayer?

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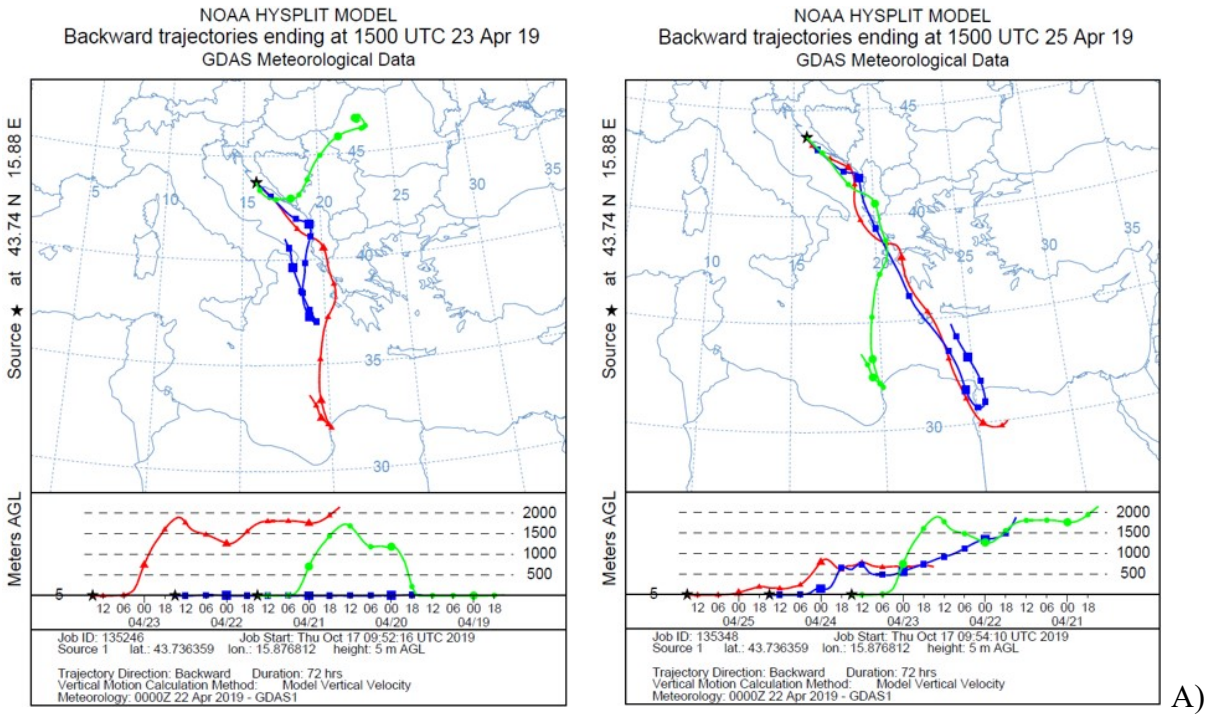


A)

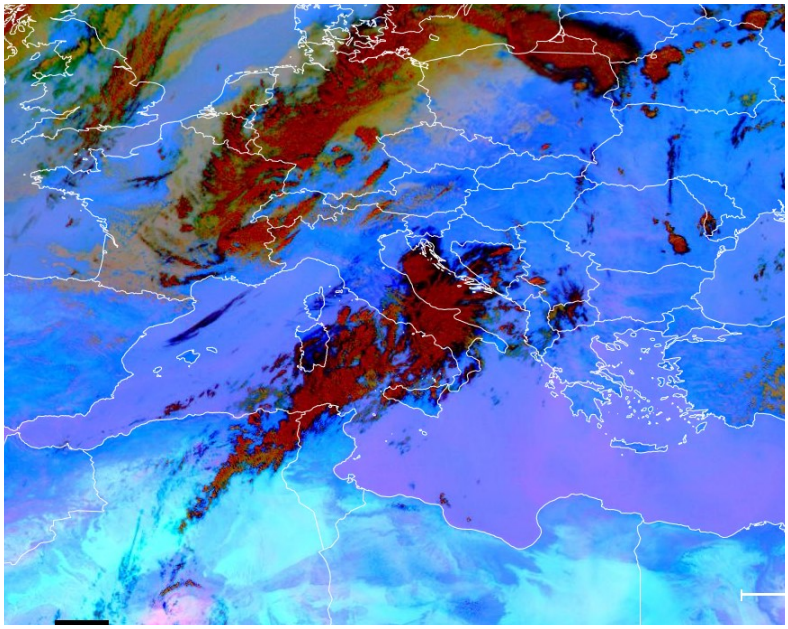
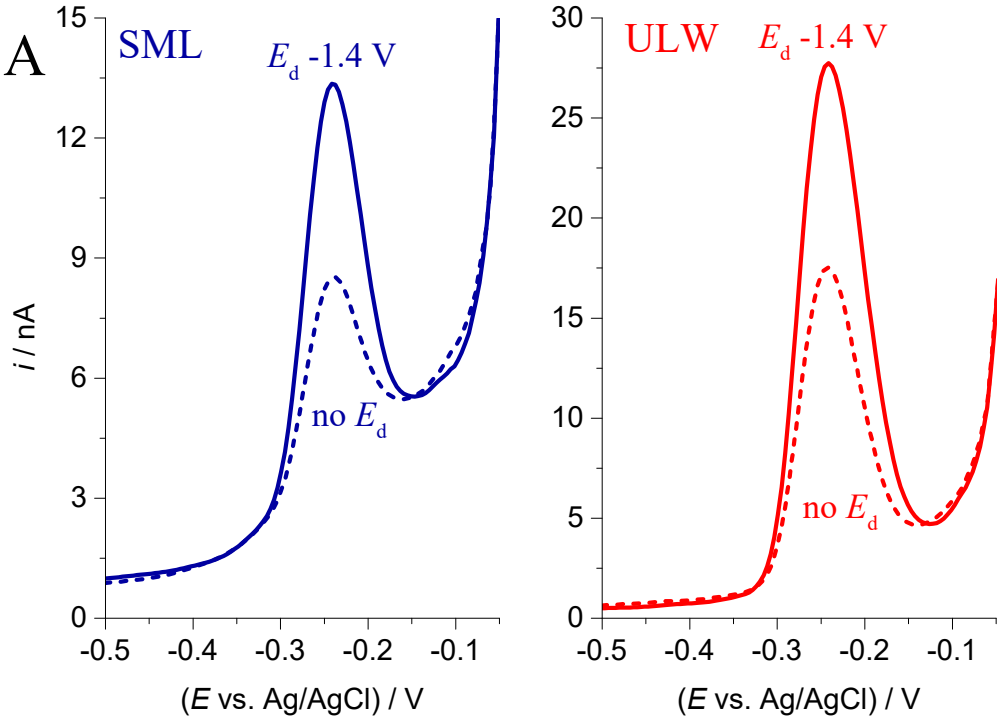
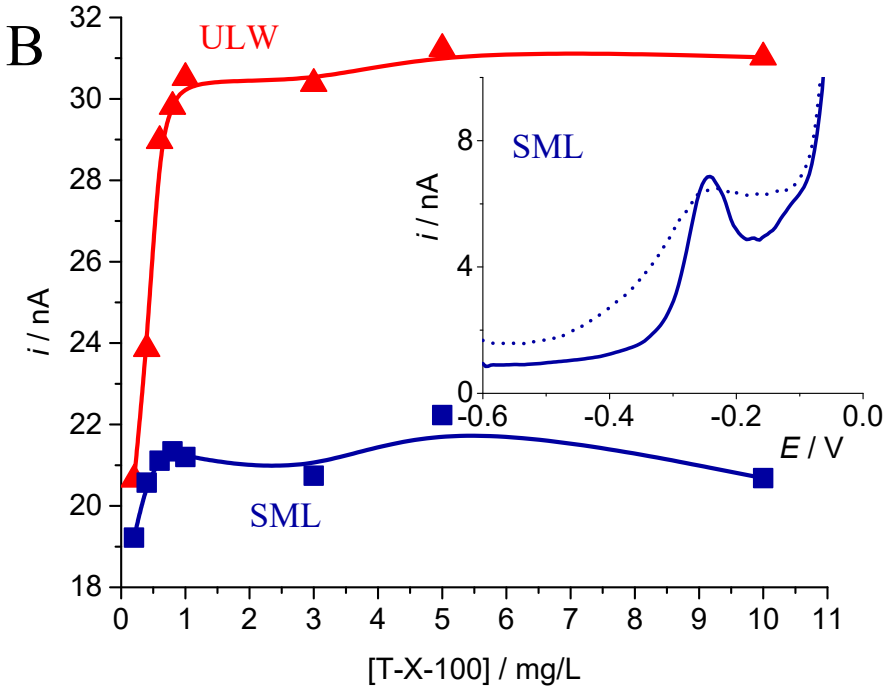

B)

Fig. S1. Saharan dust intrusion: A) NOAA HYSPLIT air-mass backward trajectories ending up at the sampling site in Šibenik area 5 m a.g.l. in April 2019, and B) satellite images of air mass transport from the Sahara for the date 24.06.2021. EUMETCiew (https://view.eumetsat.int/productviewer?v=default).

Fig. S2. The sea surface microlayer sampler (designed by dr. D. Omanović, Ruđer Bošković Institute, Zagreb, Croatia)


A
SML
E_d -1.4 V
no E_d
ULW
E_d -1.4 V
no E_d
i / nA
(E vs. Ag/AgCl) / V


B
ULW
SML
SML
i / nA
E / V
i / nA
[T-X-100] / mg/L

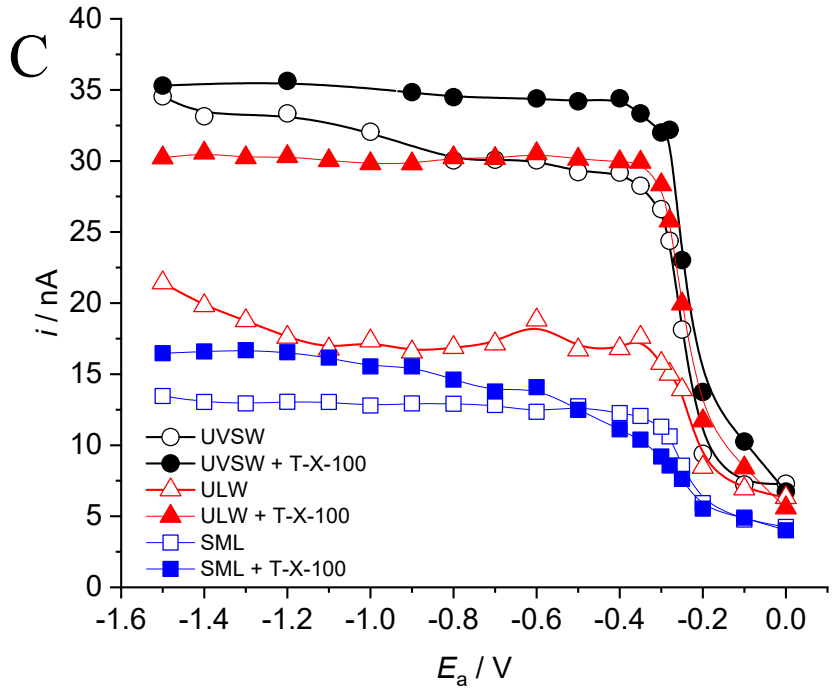


Fig. S3. A) DPASV voltammograms of Cu in the SML sample (April 16th, 2019 with added 400 nM Cu^{2+}) and ULW sample (April 1st, 2019 with added 320 nM Cu^{2+}), recorded with (full line) and without (dashed line) desorption step at E_d = –1.4 V for 1 s, E_a = –0.6 V, t_a = 120 s, [T-X-100] = 1 mg/L. B) Dependence of Cu peak height on T-X-100 concentration. Inset: Cu voltammograms in DPASV for the SML sample without (dotted line) and with addition (full line) of 1 mg/L T-X-100, [Cu^{2+}] = 160 nM, E_a = –0.6 V, t_a = 120 s, E_d = –1.4 V for 1 s. C) Pseudopolarograms of Cu in UV-irradiated seawater, in SML and ULW April samples, [T-X-100] = 1 mg/L, [Cu^{2+}] = 560 nM, t_a = 60 s, E_d = –1.4 V.

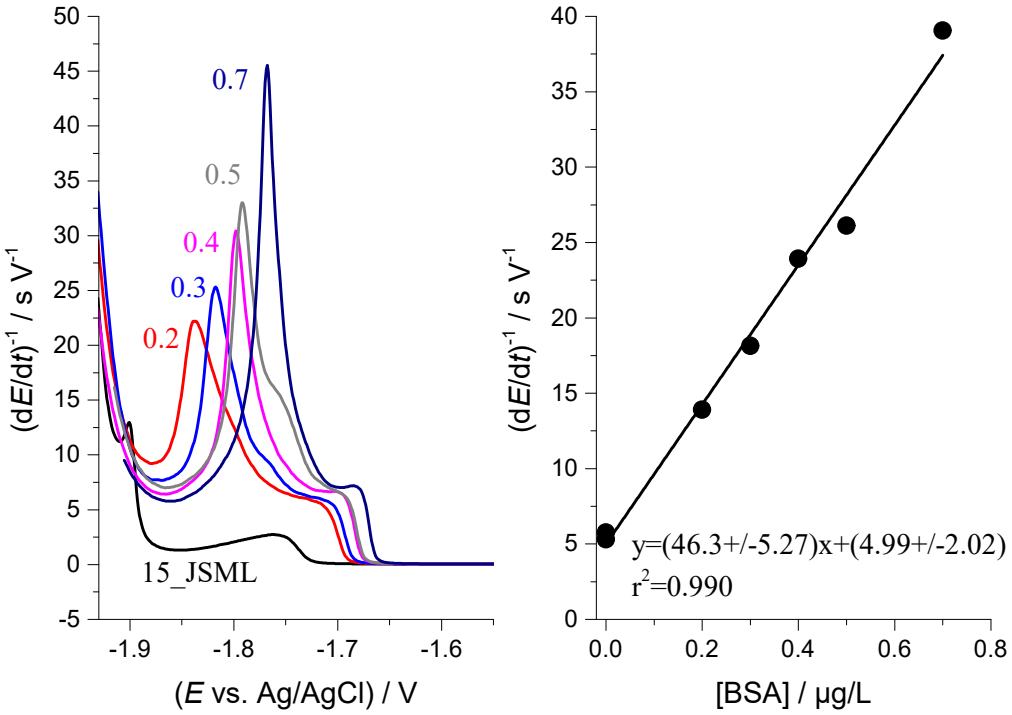


Fig. S4. Chronopotentiograms for Jadrija SML sample (April 16th, 2019) with addition of 0.2-0.7 µg/L BSA. E_a –0.6 V, t_a 120 s, I_{str} = –4 µA, maximal time of measurement 3 s.

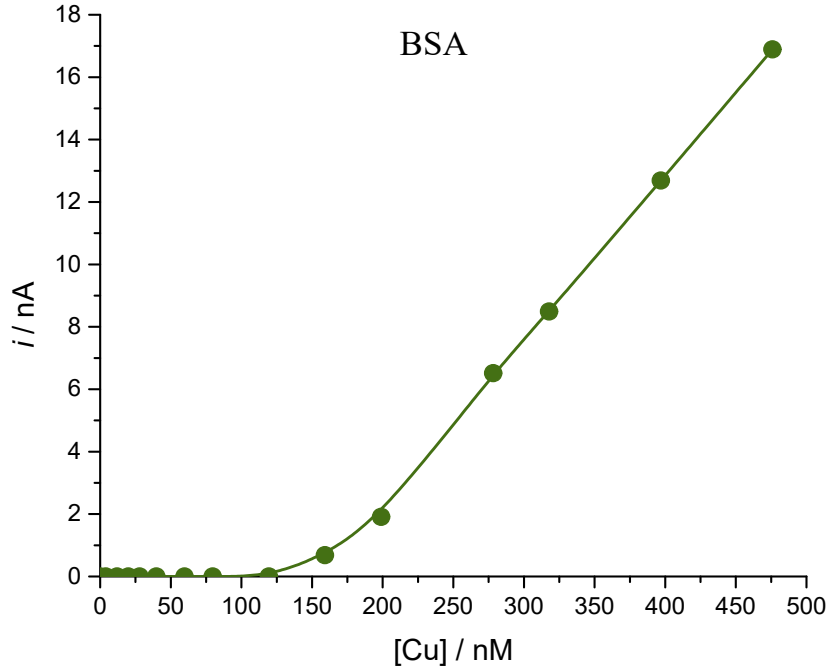


Fig. S5. Titration curve for 1 mg/L BSA model solution, [T-X-100] = 1 mg/L, nitrogen purging time 300 s, E_a = –0.6 V, t_a = 120 s, E_d = –1.4 V.

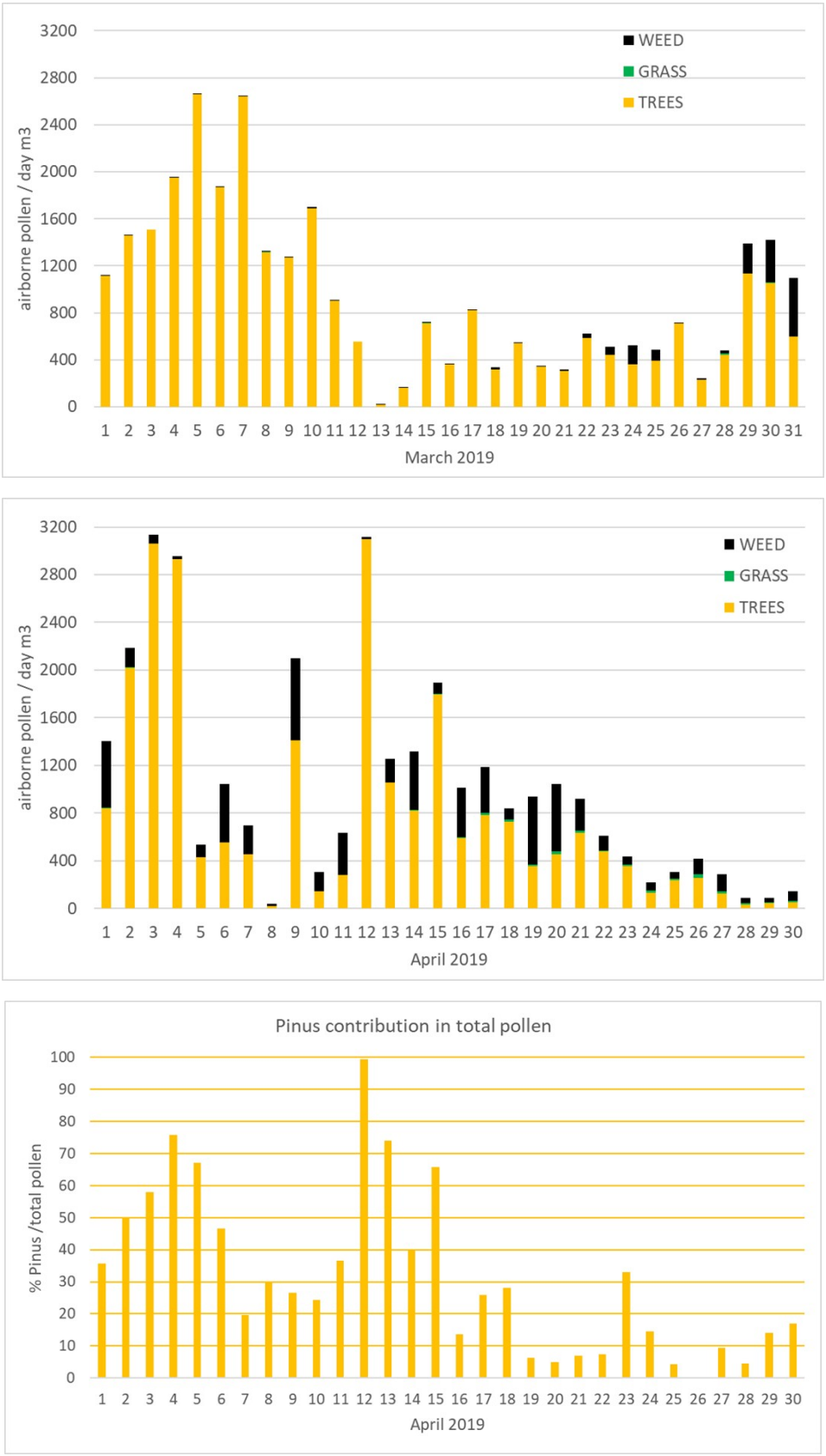


Fig. S6. The amount of weed, grass and tree airborne pollen in the total pollen determined in March and April 2019 in Šibenik area (middle Adriatic eastern coastal area) and *Pinus* pollen contribution in total pollen concentration in April 2019.