

**Fig. S1.** Sample-based rarefaction curves representing the number of observed OTUs at different sequencing depths. The same microalgal strain was grown in different conditions, for a decade: LAB1 derives from a laboratory maintenance culture sampled in autumn = red; LAB2 derive from the same maintenance culture sampled in winter = green; SES is a culture grown in a GWP®-III photobioreactor = blue; CAM is a culture obtained from a 0.5-L bubble tube, inoculated with a culture grown in a GWP®-I photobioreactor = orange.