

- Pinckney JL, Paerl HW, Harrington MB, 1999. Responses of the phytoplankton community growth rate to nutrient pulses in variable estuarine environments. *Journal of Phycology*. 35:1455-63.
- Polemio M, Casarano D, 2004. Rainfall and drought in southern Italy (1821-2001). IAHS-AISH publication. 286:217-27.
- Polemio M, Casarano D, 2008. Climate change, drought and groundwater availability in southern Italy. In: W. Dragoni and B.S. Sukhija (eds), *Climate Change and Groundwater*. The Geological Society Special Publications. 288:39-51.
- Reynolds CS, 1984. Phytoplankton periodicity: the interactions of form, function and environmental variability. *Freshwater Biology*. 14:111-42.
- Reynolds CS, 1994a. The long, the short and the stalled: on the attributes of phytoplankton selected by physical mixing in lakes and rivers. *Hydrobiologia*. 289:9-21.
- Reynolds CS, 1994b. The role of fluid motion in the dynamics of phytoplankton in lakes and rivers. In: P.S. Giller, A.G. Hildrew, D. Raffaelli (eds), *Ecology of Aquatic Organisms: Scale, Pattern, Process*. Blackwell Scientific Publications, Oxford, UK, p.141-87.
- Reynolds CS, 1999. Modelling phytoplankton dynamics and its application to lake management. *Hydrobiologia*. 395:123-31.
- Reynolds CS, 2003. Planktic community assembly in flowing water and the ecosystem health of rivers. *Ecological Modelling*. 160:191-203.
- Reynolds CS, 2006. *The Ecology of Phytoplankton*. Cambridge University Press, Cambridge, UK 535 pp.
- Reynolds CS, Descy JP and Padisák J, 1994. Are phytoplankton dynamics in rivers so different from those in shallow lakes? *Hydrobiologia*. 289:1-7.
- Reynolds CS, Descy JP, 1996. The production, biomass and structure of phytoplankton in large rivers. *Archiv für Hydrobiologie, Supplementband Large Rivers*. 10:161-27.
- Romano E, Petrangeli AB, Salerno F, Guyennon B, 2022. Do recent meteorological drought events in central Italy result from long-term trend or increasing variability? *International Journal of Climatology*. 42:4111-28.
- Rojo C, Cobelas MA, Arauzo M, 1994. An elementary, structural analysis of river phytoplankton. *Hydrobiologia*. 289:43-55.
- Roubeix V, Lancelot C, 2006. Effect of salinity on growth, cell size and silicification of an euryhaline freshwater diatom *Cyclotella meneghiniana* Kutz. *Transitional Waters Bulletin*. 1:31-8.
- Saggiomo M, Bolinesi F, Brunet C, *et al.*, 2023. A CHEMTAX-derived phytoplankton community structure during 12-year observations in the Gulf of Naples (LTER-MC). *Marine Ecology*. 2023:e12745.
- Schuchardt B, Schirmer M, 1991. Phytoplankton maxima in the tidal freshwater reaches of two coastal plain estuaries. *Estuarine, Coastal and Shelf Science*. 32:187-206.
- Shuman F, Lorenzen R, Carl J, 1975. Quantitative degradation of chlorophyll by a marine herbivore. *Limnology and Oceanography*. 20:580-6.
- Taguchi Y-H, Oono Y, 2005. Relational patterns of gene expression via non-metric multidimensional scaling analysis. *Bioinformatics* 21:730-40.
- Tavernini S, Pierobon E, Viaroli P, 2011. Physical factors and dissolved reactive silica affect phytoplankton community structure and dynamics in a lowland eutrophic river (Po river, Italy). *Hydrobiologia*. 669:213-25.
- Ustin SSM, Hestir E, Khanna S, *et al.*, 2014. Developing the capacity to monitor climate change impacts in Mediterranean estuaries. *Evolutionary Ecology Research*. 16:529-50.
- van der Tuin H, 1991. Guidelines on the study of seawater intrusion into rivers. International Hydrological Programme, UNESCO, 138 pp.
- Valle-Levinson A, 2010. Definition and classification of estuaries. Available from: https://assets.cambridge.org/97805218/99673/excerpt/9780521899673_excerpt.pdf
- Verri G, Pinaridi N, Oddo G, *et al.*, 2018. River runoff influences on the Central Mediterranean overturning circulation. *Clim. Dyn.* 50:1676-703.
- Vidussi F, Claustre H, Bustillos-Guzman J, *et al.*, 1996. Determination of chlorophylls and carotenoids of marine phytoplankton: separation of chlorophyll a from divinyl-chlorophyll a and zeaxanthin from lutein. *Journal Plankton Research*. 18:2377-82.
- Wardwick RM, Tweedley RJ, Potter IC, 2018. Microtidal estuaries warrant special management measures that recognise their critical vulnerability to pollution and climate change. *Marine Pollution Bulletin*. 135:41-46.
- Waylett AJ, Hutchins MG, Johnson AC, *et al.*, 2013. Physicochemical factors alone cannot simulate phytoplankton behaviour in a lowland river. *Journal of Hydrology*. 497:223-33.
- Weisse T, 2008. Limnoecology: The Ecology of Lakes and Streams. *Journal of Plankton Research*. 30:489-90.
- Whitton BA, 1975. *River Ecology*. Vol. 2. University of California Press, Berkeley, USA. 725 pp.
- Yentsch CS, Menzel DW, 1963. A method for the determination of phytoplankton chlorophyll and phaeophytine by fluorescence. *Deep Sea Res.* 10:221-31.
- Wright SW, Jeffrey SW, 2006. Pigment markers for phytoplankton production. *Marine Organic Matter: Biomarkers, Isotopes and DNA*. 2005:71-104.
- Wright SW, Thomas DP, Marchant HJ, *et al.*, 1996. Analysis of phytoplankton of the Australian sector of the Southern Ocean: Comparisons of microscopy and size frequency data with interpretations of pigment HPLC data using the "CHEMTAX" matrix factorisation program. *Marine Ecology Progress Series*. 144:285-98.

Online supplementary material:

Table S1. Pigments: *Chl a* ratios at each station in July 2017 (a); surface layer May 2021(b); bottom layer in May 2021(c).