

Interactive comment on “Winter phytoplankton blooms in the offshore south Adriatic waters (1995–2012) regulated by hydroclimatic events: Special emphasis on the exceptional bloom of 1995” by Mirna Batistić et al.

Anonymous Referee #3

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The paper seeks to understand the factors governing winter phytoplankton blooms in the southern Adriatic over the period 1995 to 2012, and argues that the mechanisms of bloom formation are different in years of cyclonic and anti-cyclonic circulation.

The data set consists of detained measurements in the winters of 1994 and 1995 and a satellite chlorophyll transect for subsequent years.

The most interesting feature of the paper is the large bloom in February 1995, a range of sampling (CTD nutrients etc) confirms the intrusion of Atlantic water in the region

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that has been published elsewhere, and was related to the observed bloom.

One might then expect, based on this initial observation, presentation of an annual time series of data that evaluated the magnitude and composition of the phytoplankton community at the study site, allowing a better quantitative understanding of the link between water circulation and phytoplankton biogeography in the region. However, this is completely lacking in the paper, with only the presentation of a T/S time series in Fig 2 and the chlorophyll transect of Fig 13 being available for the subsequent years. The discussion then relates chlorophyll concentration to oceanographic conditions, but lacks the depth of analysis that would have been afforded by a more complete data set including phytoplankton and in situ measurements over multiple years.

In many cases, and in particular figure 13, the figures are poorly prepared and very difficult to read and interpret.

In summary the paper presents an interesting observation from over 20 years ago, but the subsequent data and its analysis is too superficial to make a compelling case for the causal relationships that the authors claim. I cannot therefore recommend publication.

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