

Interactive comment on “Changes in the Adriatic oceanographic properties induced by the Eastern Mediterranean Transient” by I. Vilibić et al.

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Received and published: 12 March 2012

In his reply to the comment by Civitarese, Vilibic et al. sustain that only invoking the inflow of the Western Mediterranean Intermediate Water can explain the increase of nutrients and concomitant decrease of salinity in mid-1990's in the Southern Adriatic. The introduction of a completely new water mass in the Ionian which has never been mentioned before in the literature (Western Mediterranean Intermediate Water) cannot be acceptable argument mainly because the Strait of Sicily has depth of about 500 m and thus in a two-layer exchange (inflow of the AW and outflow of the LIW) a possible existence of the important part of the cross section occupied by the WM intermediate layer is hardly acceptable. Authors also in their reply say that “Eventual dragging of intermediate Western Mediterranean waters towards the east is supported by the anal-

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ysis of water masses over the Sicily Strait (Gasparini et al., 2005).” which however has not been mentioned in the cited paper. Another aspect of the same argument saying implicitly that the N:P ratio is a conservative property of a water mass in the 115 m depth cannot be accepted either. The authors apply implicitly the same reasoning to the pH i.e. that it is a conservative property of a water mass. Both parameters can hardly be considered conservative due to intense biological activity in the 100-m deep water column. Subsequently, authors in citing the paper by Borzelli et al. (2009) say that Western Mediterranean intermediate waters “were presumably deviated northward by the anticyclonic Ionian gyre together with surface nutrient-depleted waters of Atlantic origin, which extended to depths of about thousand meters . . .” the fact that Borzelli et al. (2009) do not state at all.

Interactive comment on Biogeosciences Discuss., 9, 927, 2012.