The distribution of nutrients in the surface layer of the Krka Estuary

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The traditional method of reporting nutrient distribution in estuaries is their presentation against normalized salinity.

In the case of the Krka Estuary (Middle Adriatic Sea), which can be classified as a "salt wedge" type (Fig. 1.a), this method is also useful.

The information obtained can be immediately visible (Fig. 1.b) and as in the case of silicate allow a conclusion of its conservative behaviour .

The more frequent occurence given on the example of ammonia (Fig. 1.c) showes that basic direction of nutrient deviations along the estuary can also be observed, but the identification of the corresponding station, however, is difficult.

Figs. 1.e and 1.f show a modified representation of the nutrient deviations from their theoretical values, taking in account the station position.

This type of diagram appears to be useful in combination with other available parameters, i.e. Chl a (Fig. 1.d) (1).

Based on the data for the Krka Estuary in 1990 and 1991 (2), this paper demonstrates the non-conversative behaviour of nutrients in the surface layer and discusses their deviations.

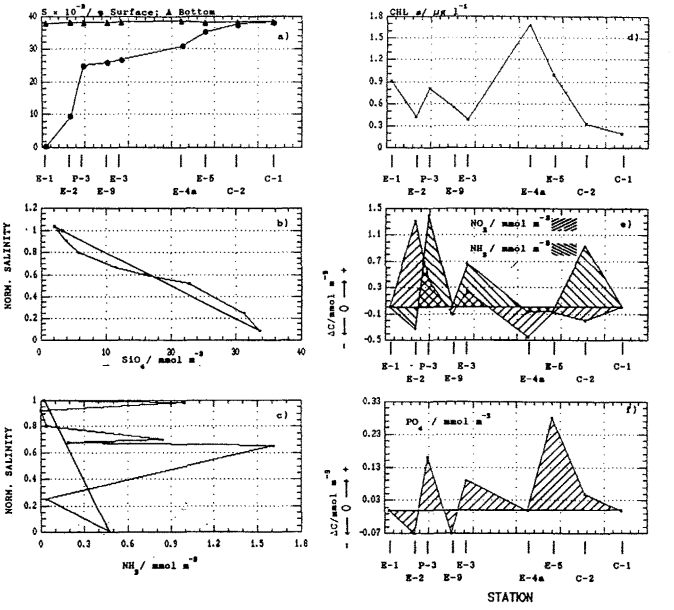

Fig.1. a) Salinity values in the surface and near bottom layer, b) Silicate against normalized salinity, c) Ammonia against normalized salinity, d) Chlorophyll a, e) Modified diagram of nitrate and ammonia deviations along the Estuary, f) Modified diagram of phosphate deviation along the Estuary.
All values are given for August 1990, exept silicate (April 1990).

REFERENCES

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