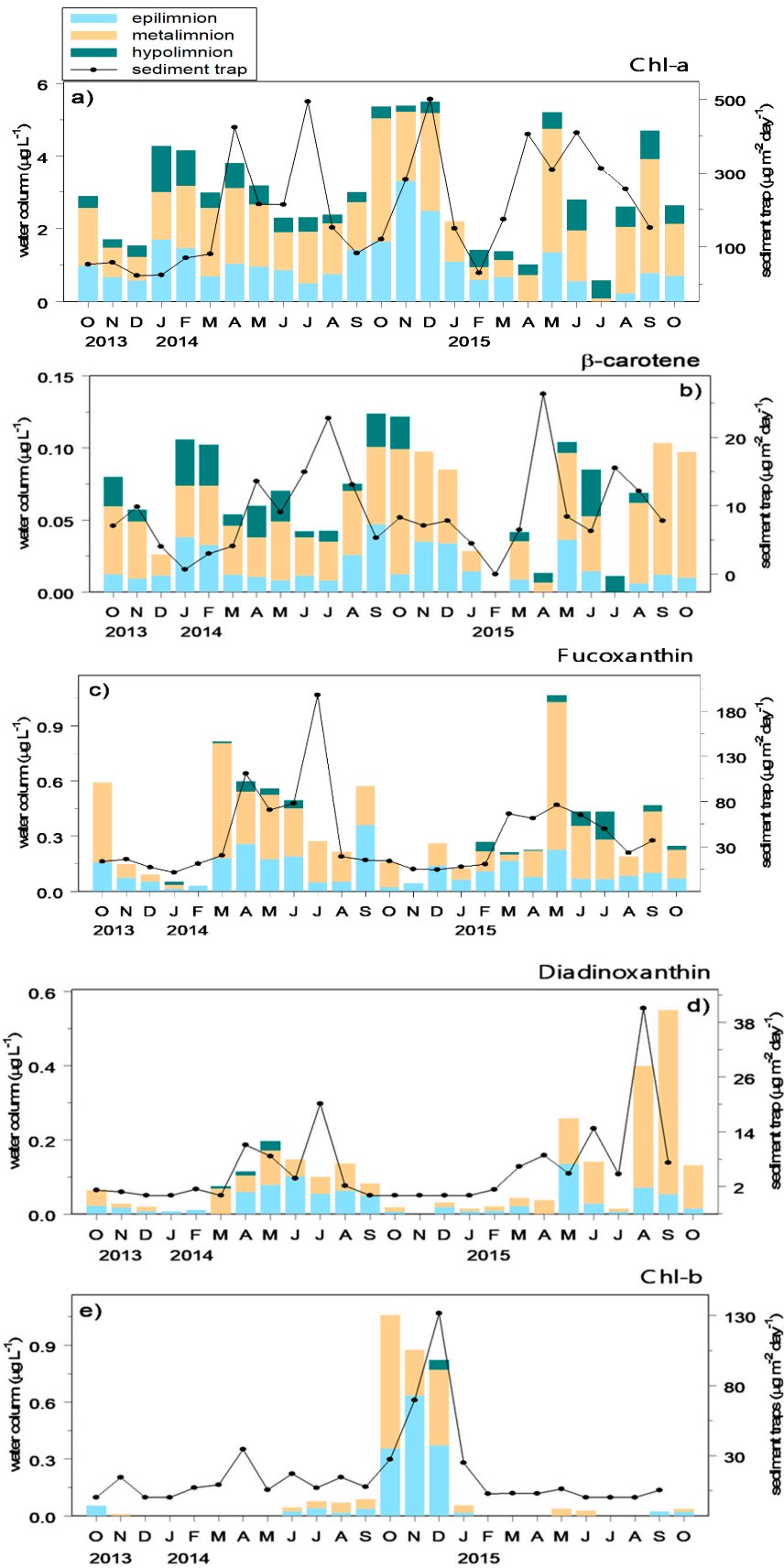
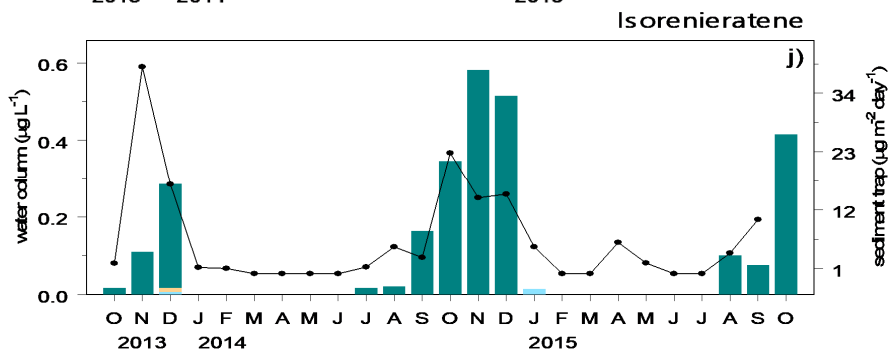
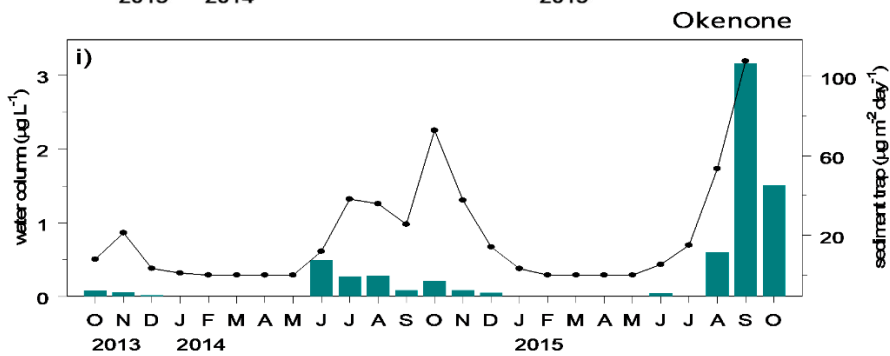
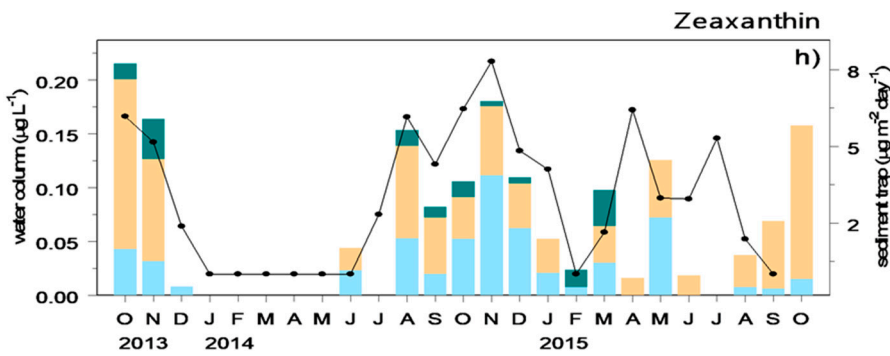
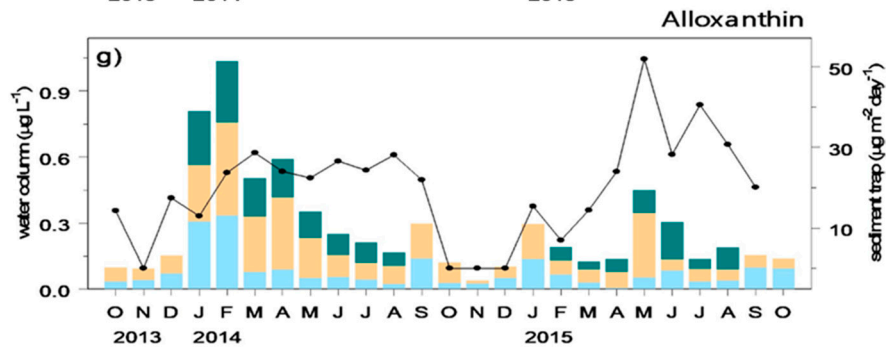
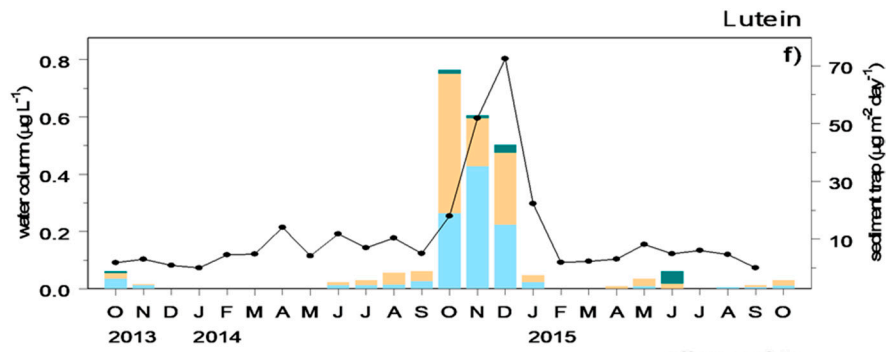


## Supplementary Material





**Figure 1.** Comparison of most representative modern marker pigments from the epi-, meta- and hypolimnion as well as their deposition in the sediment trap, on the basis of annual values of the period 2013–2015.

**Table 1.** Marker pigments co-occurring in the water column and sediment record and their taxonomic affinities for lake Montcortès.

<b>Marker pigment</b>	<b>Taxonomic affinity</b>
b-carotene	Cyanobacteria and Algae
Chl-a	Cyanobacteria and Algae
Phaeophythin-a1, -a2	Chl-a derivative
Lutein	Chlorophyta
Chl-b	Chlorophyta
Phaeophythin-b1	Chl-b derivative
Zeaxanthin	Chlorophyta and Cyanobacteria
Antheraxanthin	Chlorophyceae and Charophyceae
Fucoxanthin	Heterokontophyta
Diatoxanthin	Heterokontophyta
Diadinoxanthin	Dinophyta and Heterokontophyta
Alloxanthin	Cryptophyta
Okenone	Chromatiaceae
Bacteriochlorophyll-a	Chromatiaceae
Bacteriopheophytin-a	Bacteriochlorophyll-a derivative
Isorenieratene	Chlorobiaceae (brown groups)
BChl-e homologues	Chlorobiaceae (brown groups)
Asthanaxanthin	Zooplankton tissues

**Table S2.** Marker pigments and their taxonomic affinities for Lake Montcortès.

<b>Marker pigments exclusively from the present-day</b>	
Peridinin	Dinophyta
Violaxanthin	Chlorophyta
Neoxanthin	Chlorophyta
Chl-c1	Heterokontophyta
Allomer Chl-a	Chl-a derivative
Epimer Chl-a	Chl-a derivative
<b>Marker pigments exclusively from the sediment record</b>	
Aphanizopyll-like	N <sub>2</sub> -fixing Cyanobacteria
Canthaxanthin	Cyanobacteria
Echinenone	Cyanobacteria
Oscillaxanthin	Oscillatoriaceae (Cyanobacteria)
Phaeophythin-b2	Chl-b senescence product
Phaeophorbide-a2	Chl-a grazing product
Phaeophorbide-a5	Chl-a grazing product