

FIG. E1. High resolution plots of the data from Fig. 3 at low algal densities. Ingestion rate (mg C per mg C of *Daphnia* per d; upper panels) and clearance rate (L per mg C of *Daphnia* per d; lower panels) with the nonlinear regression best fit curves for type II (b=1; dashed line) and type III (b>1; solid line) functional responses as fitted to the entire data set (see Fig. 3). Species pairs are: *D. hyalina* and *M. minutum* at 20°C (A and B) and 14°C (C and D), *D. hyalina* and *C. meneghiniana* at 16°C (E and F), *D. magna* and *M. minutum* at 16°C (G and H)



FIG. E2. Predicted population dynamics for *D. hyalina* and *M. minutum* at 14°C. Shown are zero-net-growthisoclines of grazers (red lines) and algae (green lines) for three different nutrient enrichment levels ($N_{in} = 0.01$, 0.02 and 0.04 mg P/L; top panels), and numerical examples of algal and grazer dynamics for $N_{in} = 0.04$ mg P/L (lower panels). Left panels (A and B) use parameters derived from ingestion rates, and right panels (C and D) use parameters derived from clearance rates.



FIG. E3. Predicted population dynamics for *D. magna* and *M. minutum* at 16°C. Shown are zero-net-growthisoclines of grazers (red lines) and algae (green lines) for three different nutrient enrichment levels ($N_{in} = 0.01$, 0.02 and 0.04 mg P/L; top panels), and numerical examples of algal and grazer dynamics for $N_{in} = 0.04$ mg P/L (lower panels). Left panels (A and B) use parameters derived from ingestion rate, and right panels (C and D) use parameters derived from clearance rates.