Metadata S3

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Copepods true colors: astaxanthin pigmentation as an indicator of individual fitness

Journal name: Ecological Monographs

- Description of:

Data S3. Abiotic and biotic variables effects on copepod astaxanthin concentrations from the literature

This dataset gathered all studies classified as "forcing variables" (column study_type, Data S1) and show the type of correlation between forcing variables astaxanthin concentration (positive, none, negative).

- Column details:

study, year, order: name of authors, year of publication, and we added the column "order" with letters a, b or c if authors published several articles in a year

condition: environment of the experiment
mesocosm
in vitro
in vivo

forcing_variables:
diet_composition (= *diet diversity*)
diet_quantity (= *diet quantity*)
feeding_activity (= *feeding activity of the copepod*)
gut_content (= *increasing gut content fullness*)
diurnal_variations (= *significant impact of daily cycle on pigmentation, no matter when the maximum is*)
UV_radiations (= *exposure to UV radiations*)
natural_light (= *exposure to natural light*)
removal of UV radiations (= *no more exposure to UV radiations*)
temperature (= *exposure to increasing temperature*)
latitude_discrete (= *increasing latitude but discrete categories, such as temperate, sub-arctic, arctic*)
lake_elevation (= *lake altitude above sea level*)
lake_depth (= *depth of the lake where copepods were sampled*)
fish_presence (= *exposure to fish presence*)
UV_fish (= *exposure to UV radiations and fish at the same time*)
threat_ratio (= *ratio between UV radiation exposure and predation*)

individual_depth (= *depth of the copepod individual in vivo*)
copper (= *exposure to copper*)
UV_radiation_copper (= *exposure to UV radiations and copper at the same time*)
diet_composition_copper (= *exposure to various diet diversity and UV radiations at the same time*)
UV_temp (= *exposure to UV and increasing temperature*)
UV_-MAAs_fish (= *exposure to UV and fish, no MAAs precursors available*)
UV_+MAAs_fish (= *exposure to UV and fish, with MAAs precursors available*)
darkness + starvation (= *starvation of individual in the dark*)
refuge (= *presence of zones protected from UV, linked to depth or algae*)
body_weight (= *body weight of the individual*)
lipid_content (= *lipid content of the individual*)
lipid content of eggs (= *lipid content of eggs*)
egg_ratio (= *number of eggs by female*)
body_length (= *body length of the individual*)
MAAs (=*MAAs precursors, possibility to synthesize MAAs)*
ice_cover (= *ice cover*)
UV_radiations_+MAAs (= *exposure to UV and MAAs precursors available*)
zoo_community_composition (=*diversity of the community composition*)
nutrients (=*abundance of nutrients*)
preferred_water_mass (= *water mass of the individual*)
pH (= *pH of the water*)
alkalinity (= *alkalinity of the water*)
lignin_like_compounds (= *lignin like compounds in the water*)
dissolved_oxygen (= *dissolved oxygen in the water*)
dissolved_organic_carbon (= *dissolved organic carbon in the water*)
dvm (= *diel vertical migration*)

asta_correlation: sense of the correlation between the forcing variable and astaxanthin content:
positive (= *significant and positive relationship*)
none (= *non signification relationship*)
negative (= *significant and negative relationship*)

confidence: confidence level of the correlation we estimated according to statistics or methods used by the authors (see comments for more details):
high, medium or low

comments:
relevant information explaining how the correlation was established, or how confidence level was estimated