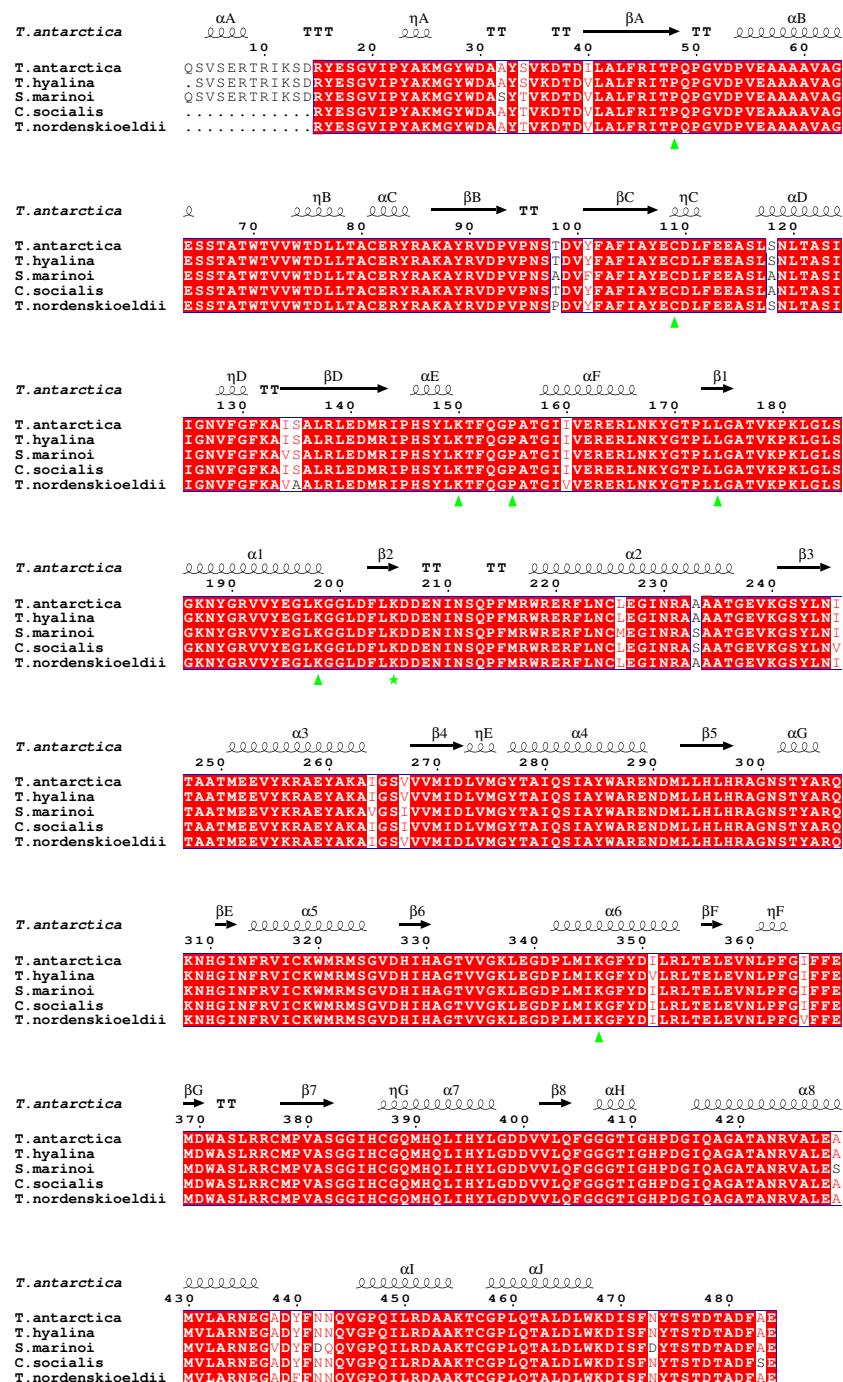
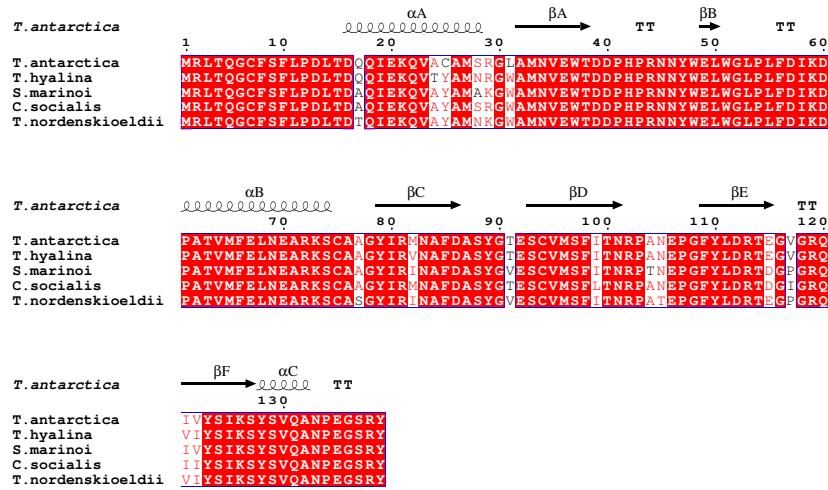


**Supporting Figure 1.** Amino acid sequences of *rbcL* and *rbcS* deduced from the analysis of the crystal structures of diatom Rubiscos. Conserved residues are *boxed*, strictly conserved residues have a *red background*, residues well conserved within a group are indicated by *red letters*, and the remaining residues are in *black letters*. Gaps are represented by dots. Residue numbering along the top refers to *T. antarctica*. Symbols above blocks of sequences correspond to the secondary structure:  $\alpha$ ,  $\alpha$ -helix;  $\beta$ ,  $\beta$ -strand;  $\eta$ ,  $\beta_10$ -helix. The secondary structure elements were named  $\beta\text{A}$ ,  $\beta\text{B}$ ...,  $\alpha\text{A}$ ,  $\alpha\text{B}$ ...etc, except for the strands and helices of the C-terminal  $\beta\alpha$  barrel, which were named  $\beta1$ ,  $\beta2$ ...,  $\alpha1$ ,  $\alpha2$ , etc according to Knight *et al.*, 1990. Symbols below blocks of sequences indicate the location of modified residues (green triangles) and the carbamylated lysine residue (green star). The sequence alignment was created using the PDB coordinates 5MZ2 (*T. antarctica*), 5N9Z (*T. hyalina*), 6FTL (*S. marinoi*) and 5OYA (*C. chaetoceros*).





## REFERENCES

- Knight, S. Andersson, I. and Brändén, C.-I. (1990). Crystallographic analysis of Ribulose 1,5-bisphosphate carboxylase from spinach at 2.4 Å resolution: subunit interactions and the active site. *J. Mol. Biol.* **215**, 113-160.