

*Supplementary Material for*

*Eukaryotic phytoplankton contributing to a seasonal bloom and carbon export  
revealed by tracking sequence variants in the western North Pacific*

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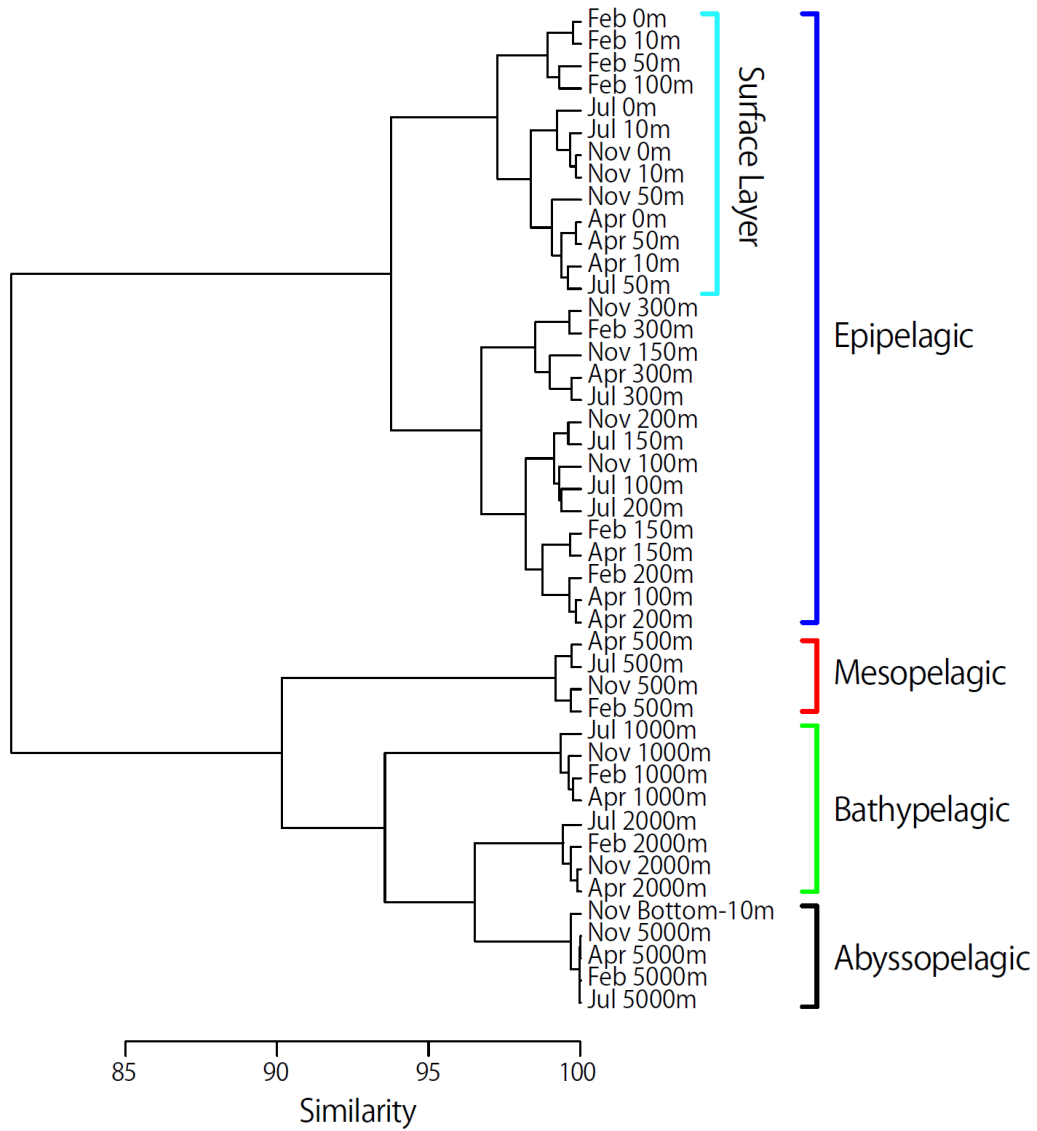
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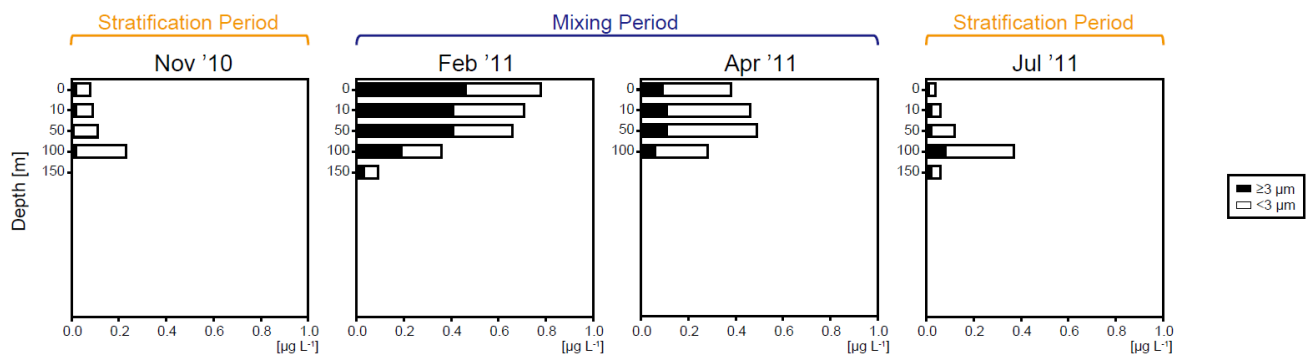
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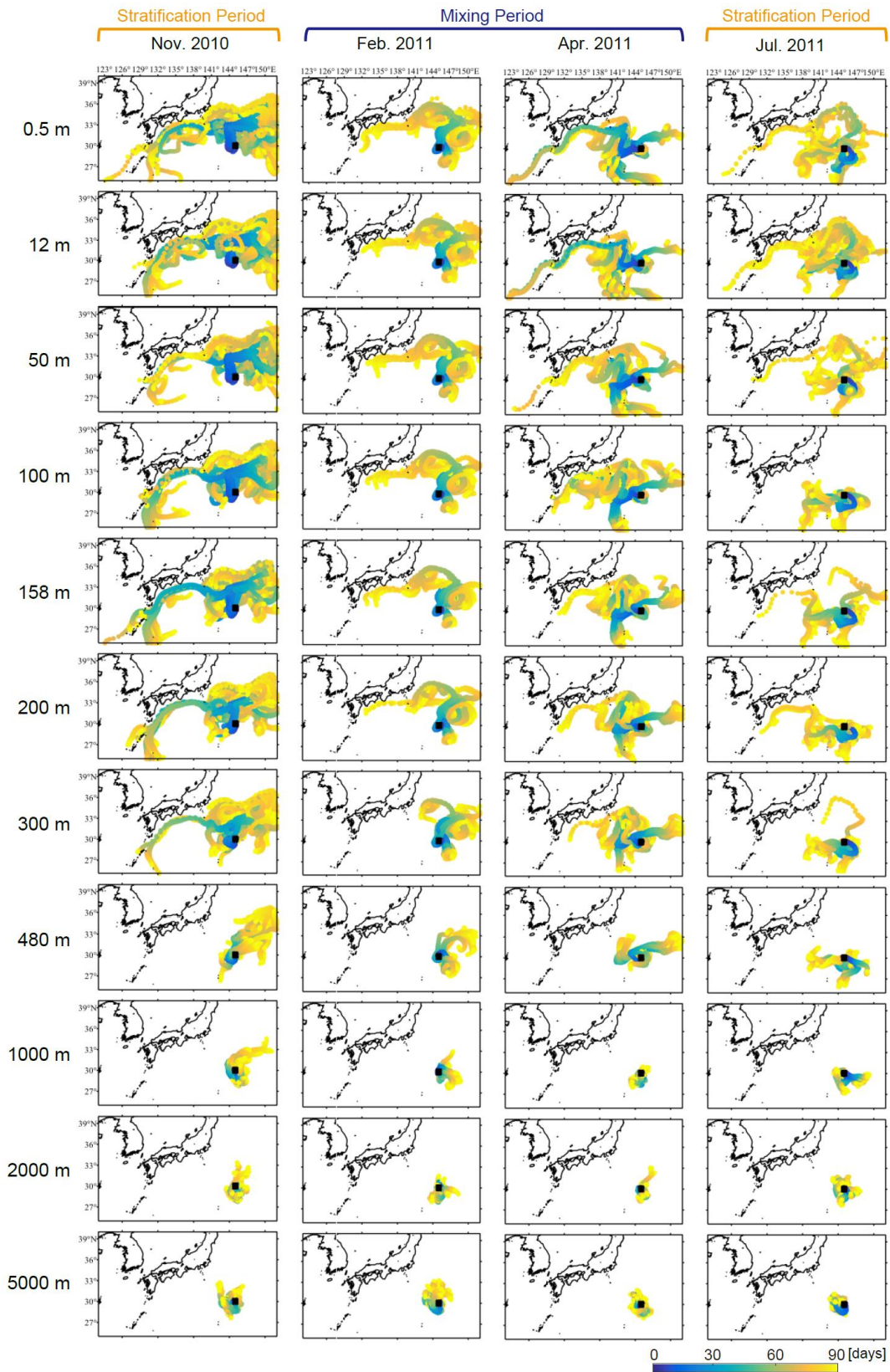
Figures S1, S2, S3, S4, and S5



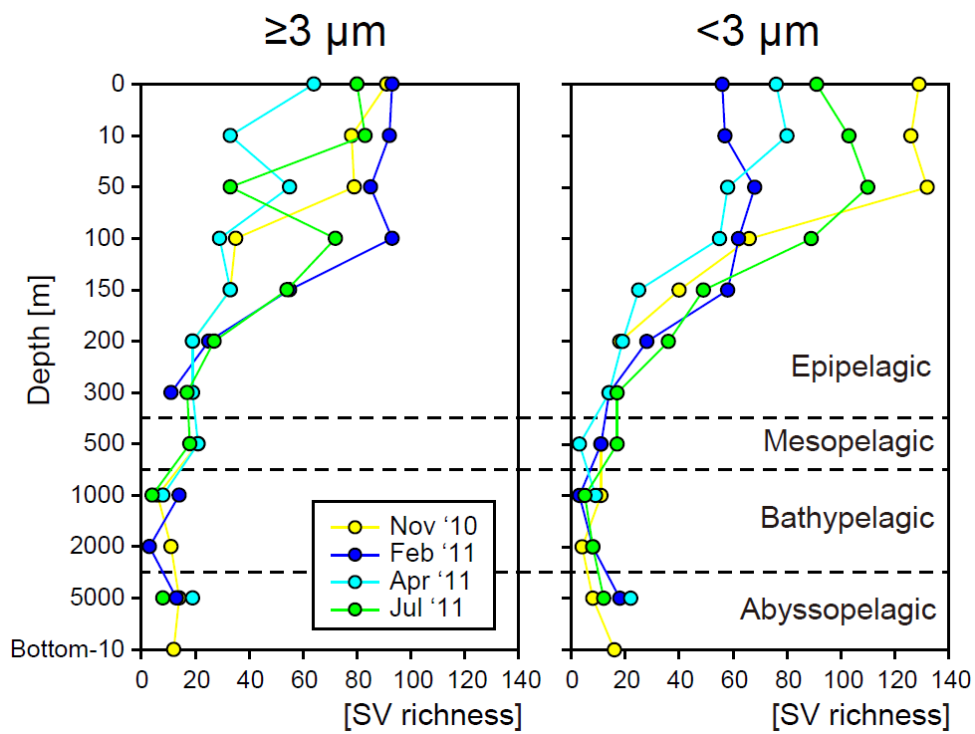
**Fig S1.** Hierarchical clustering based on the Bray-Curtis similarity of samples used for DNA analysis with environmental variables (temperature, salinity, dissolved oxygen, and nitrate concentration).



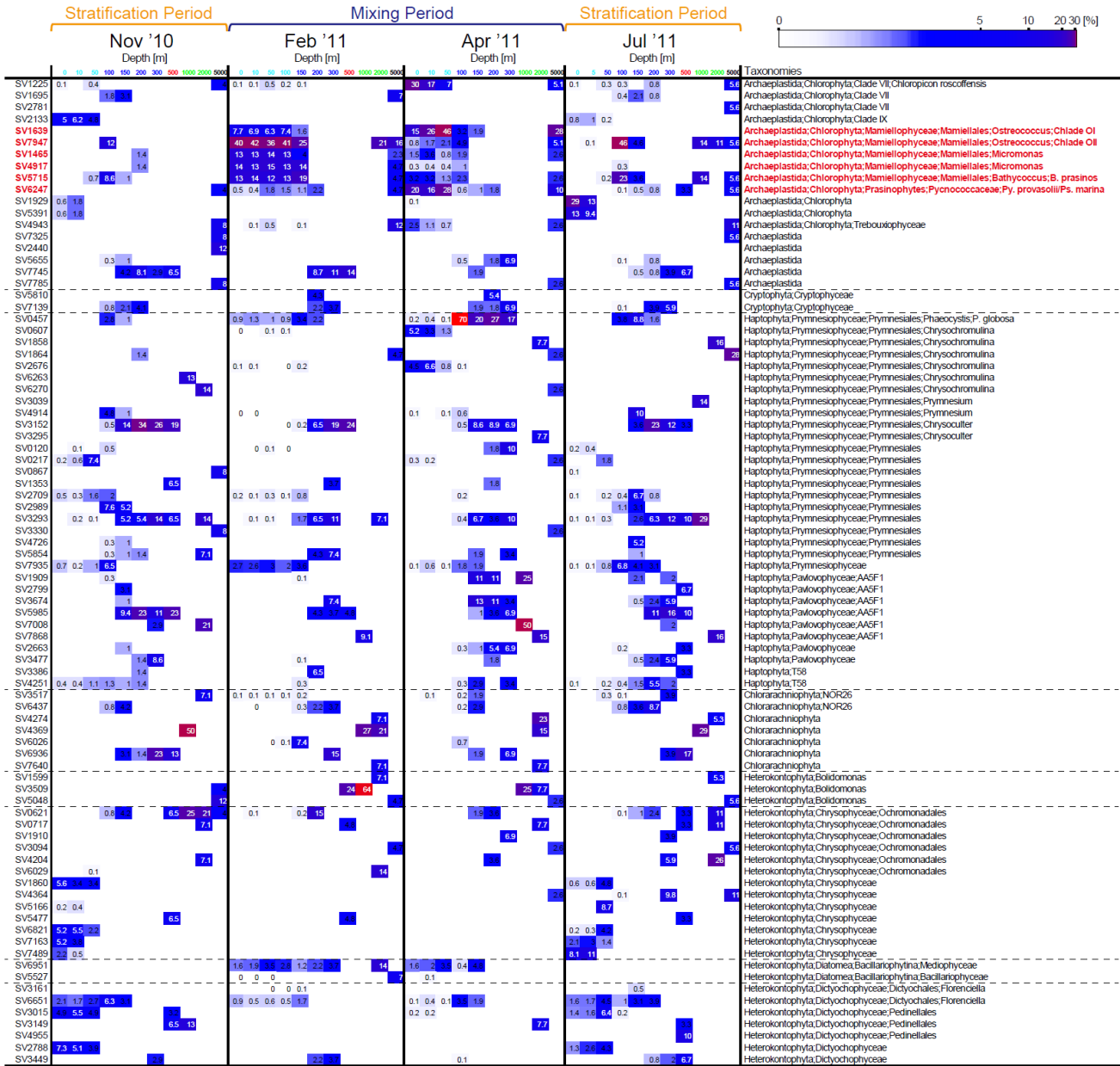
**Fig S2.** Vertical distribution of the chl *a* concentration in each month. Closed and open bars indicate the  $\geq 3\text{-}\mu\text{m}$  and  $< 3\text{-}\mu\text{m}$  fractions, respectively.



**Fig S3.** Back trajectories of particles present at station S1 at the various sampling depths over the 90 days prior to sampling at each month.



**Fig S4.** Vertical distributions of the SV number for each month and size fraction.



**Fig S5.** Heatmap of the relative abundance of representative SVs ( $\geq 5\%$  of total reads at a given depth) in the  $< 3\text{-}\mu\text{m}$  size fraction. The relative abundance is shown in white when greater than 5%.