

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Presence of structural pilus genes in cultured picocyanobacterial isolates and SAGs

File Name: Supplementary Data 2

Description: Sinking rate of wild type and pili mutant strains of *Synechococcus* sp. WH7803

File Name: Supplementary Data 3

Description: Cellular proteomes and exoproteome quantification and comparative proteomic analysis of wild type and pili mutant *Synechococcus* sp. WH7803 strains.

File Name: Supplementary Data 4

Description: Exoproteome quantification and comparative proteomic analysis of *Prochlorococcus* sp. MIT9313 under different conditions.

File Name: Supplementary Data 5

Description: Exoproteome quantification and comparative proteomic analysis of *Synechococcus* sp. WH7803 when grown under different nutrient starvation conditions.

File Name: Supplementary Data 6

Description: Exoproteome quantification and comparative proteomic analysis of *Synechococcus* sp. WH7803 when grown under different nutrient concentration.

File Name: Supplementary Data 7

Description: Exoproteome quantification and comparative proteomic analysis of *Synechococcus* sp. WH7803 when grown under different light regimes.

File Name: Supplementary Movie 1

Description: Suspended wild type cells of *Synechococcus* sp. WH7803.

File Name: Supplementary Movie 2

Description: Suspended pili mutant cells of *Synechococcus* sp. WH7803.

File Name: Supplementary Movie 3

Description: . Tracked suspended wild type cell of *Synechococcus* sp. WH7803.

File Name: Supplementary Movie 4

Description: Tracked suspended pili mutant cell of *Synechococcus* sp. WH7803.