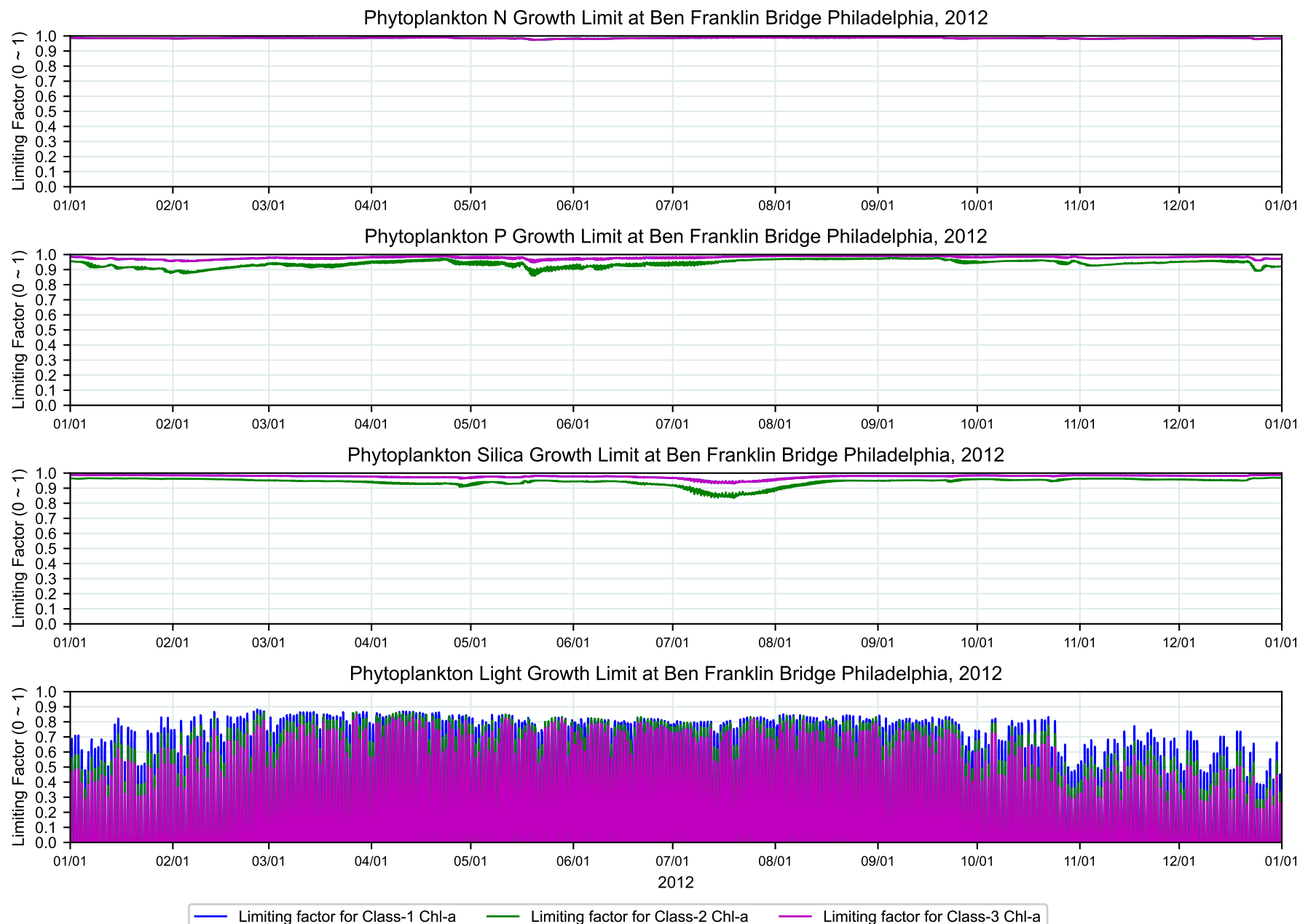


Appendix G: Diagnostic Analysis

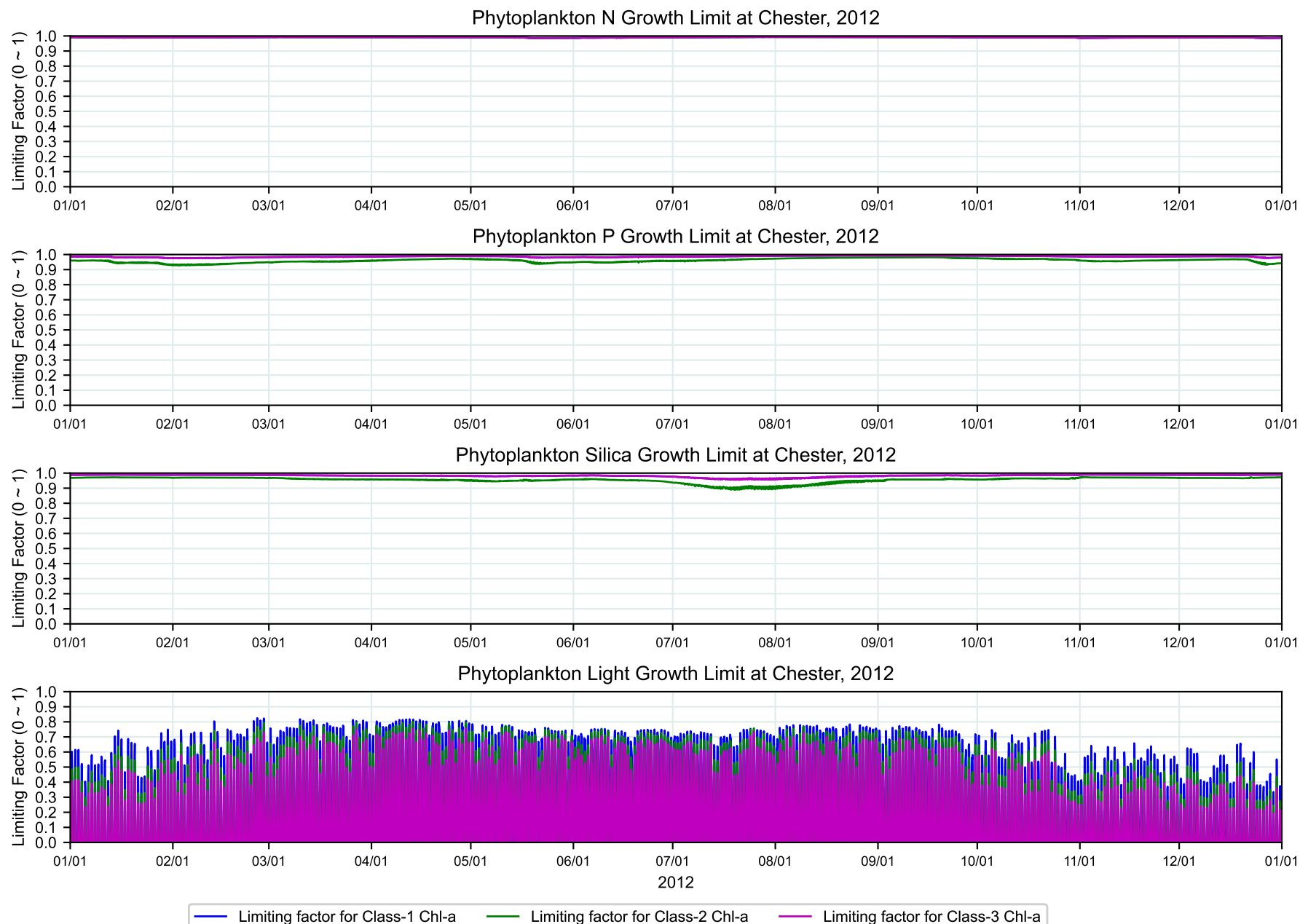
Appendix G-2: Phytoplankton Limiting Factors

This appendix is in connection with Section 3.2.5.2 in the main report – Phytoplankton Limiting Factors. It presents the time series of limiting factors of nutrients (i.e., nitrogen, phosphorus, and silica) and light at the water surface at Pennypack Woods, Ben Franklin Bridge, Chester, and Reedy Island for the 2018–2019 calibration and the corroboration year of 2012.



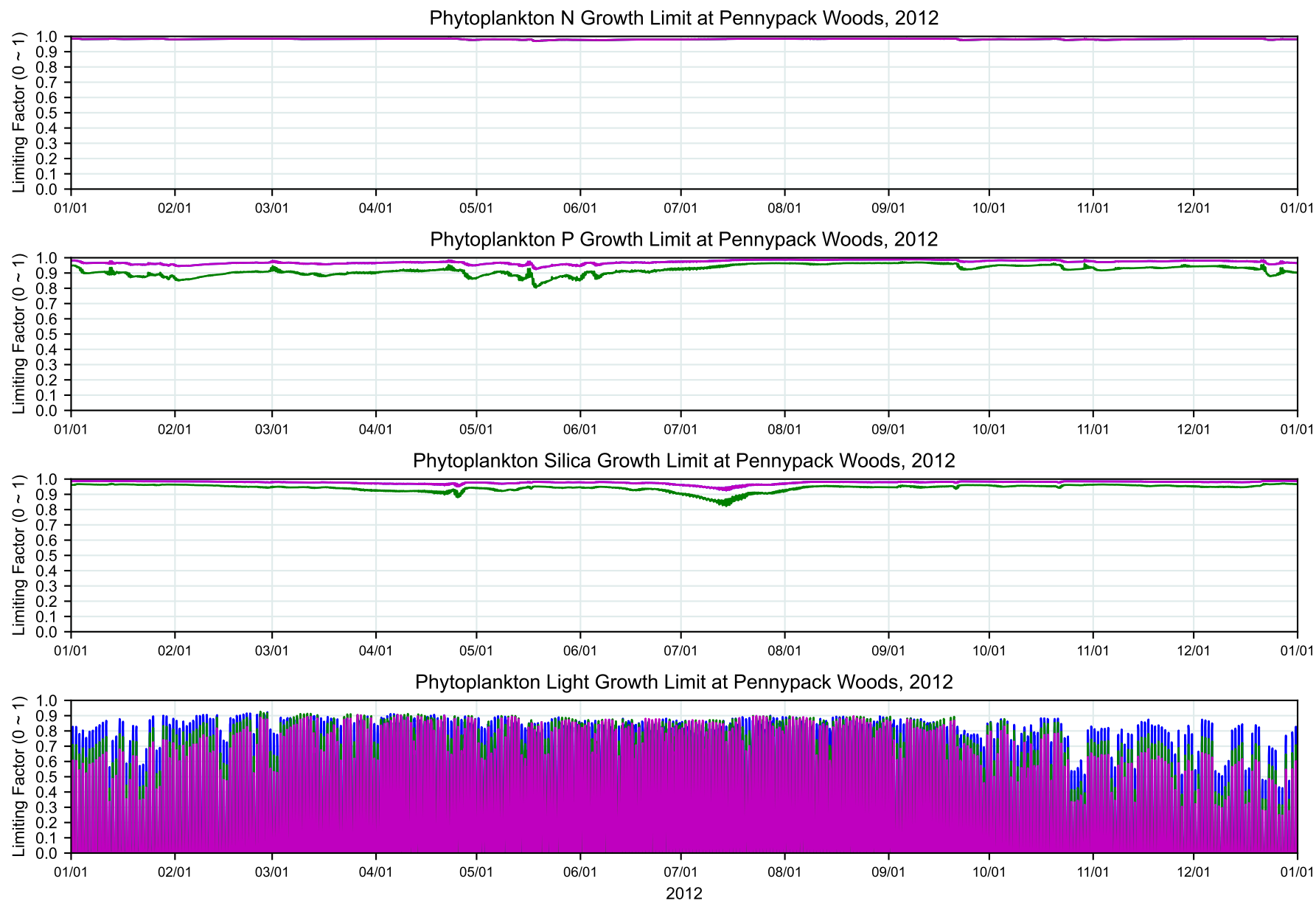
Predicted Limiting Factors for Phytoplankton Growth at Ben Franklin Bridge Philadelphia for 2012

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: 3D_202208-01



Predicted Limiting Factors for Phytoplankton Growth at Chester for 2012

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: 3D_202208-01

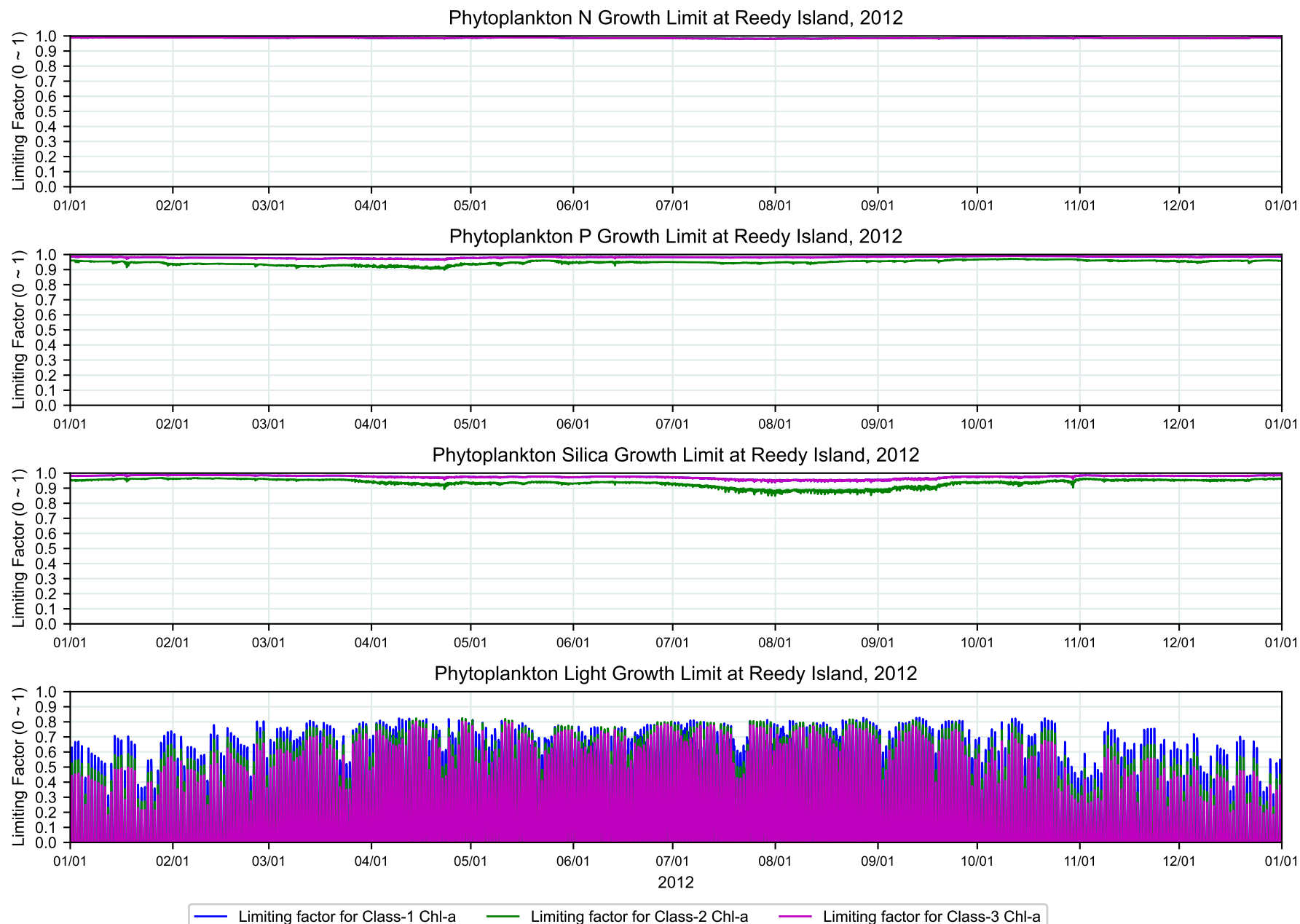


— Limiting factor for Class-1 Chl-a — Limiting factor for Class-2 Chl-a — Limiting factor for Class-3 Chl-a



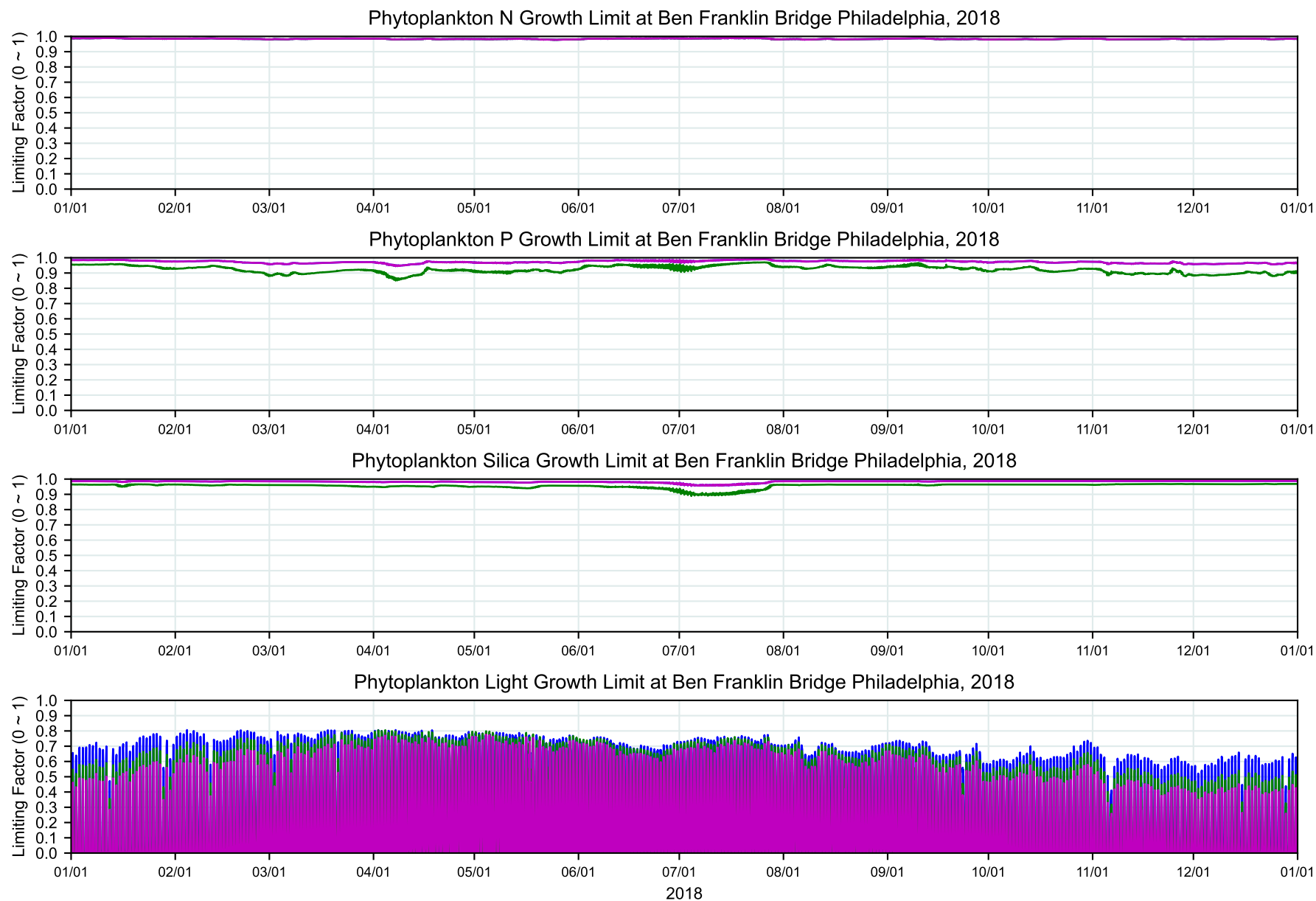
Predicted Limiting Factors for Phytoplankton Growth at Pennypack Woods for 2012

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: 3D_202208-01



Predicted Limiting Factors for Phytoplankton Growth at Reedy Island for 2012

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: 3D_202208-01

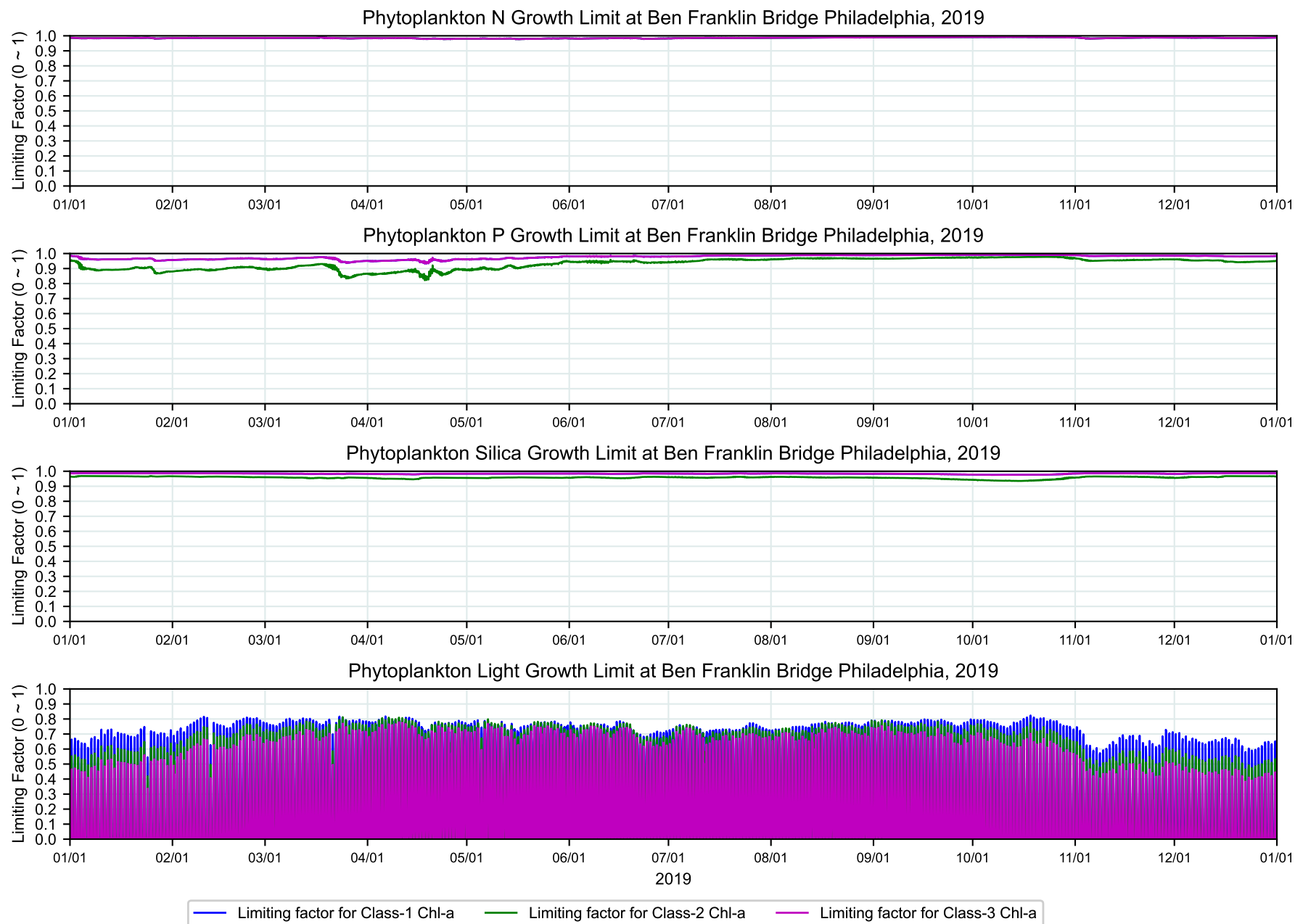


— Limiting factor for Class-1 Chl-a
 — Limiting factor for Class-2 Chl-a
 — Limiting factor for Class-3 Chl-a



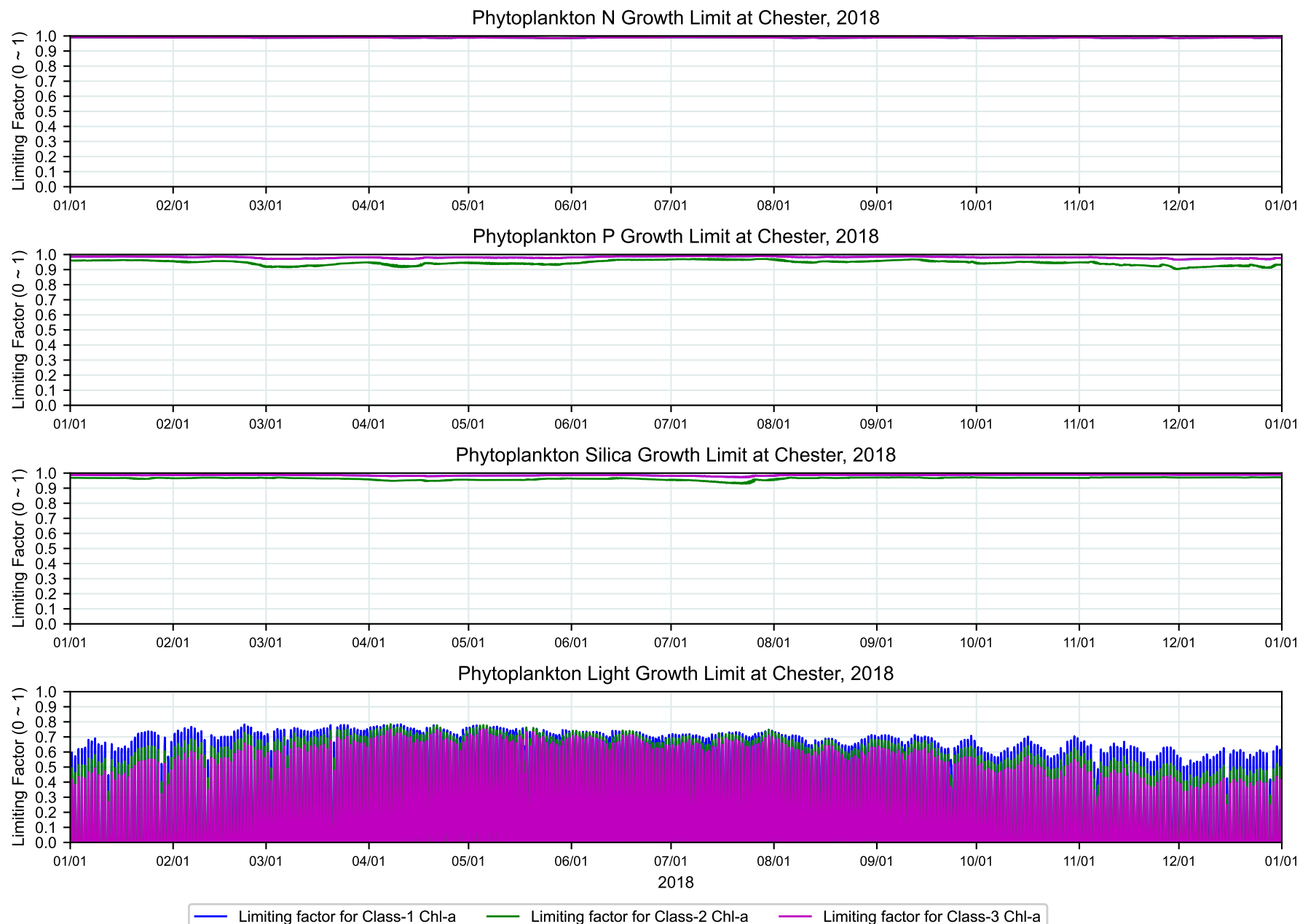
Predicted Limiting Factors for Phytoplankton Growth at Ben Franklin Bridge Philadelphia for 2018

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
 WASP Model Run: WASP_G7pt2_3D_202208-01



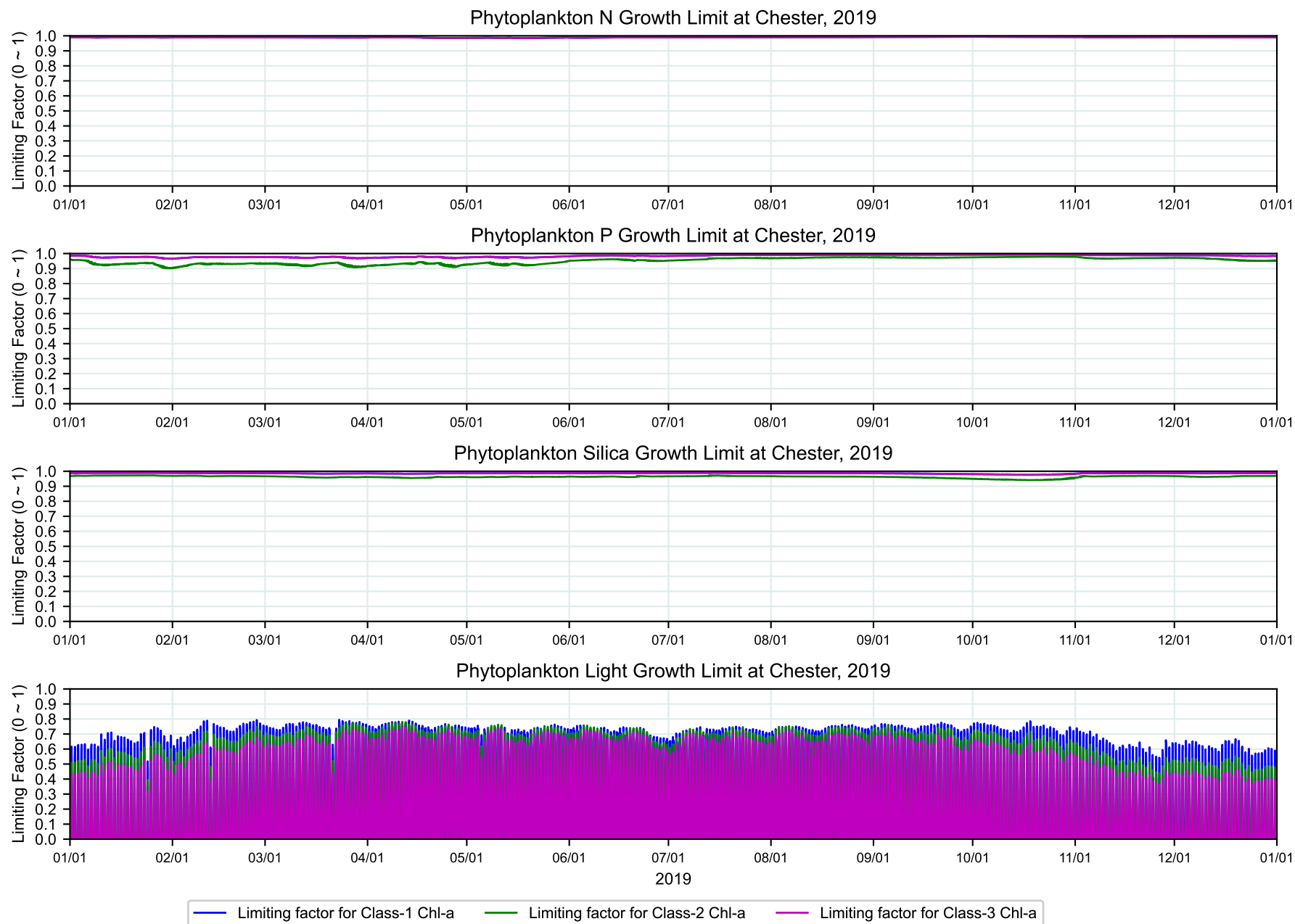
Predicted Limiting Factors for Phytoplankton Growth at Ben Franklin Bridge Philadelphia for 2019

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: WASP_G7pt2_3D_202208-01



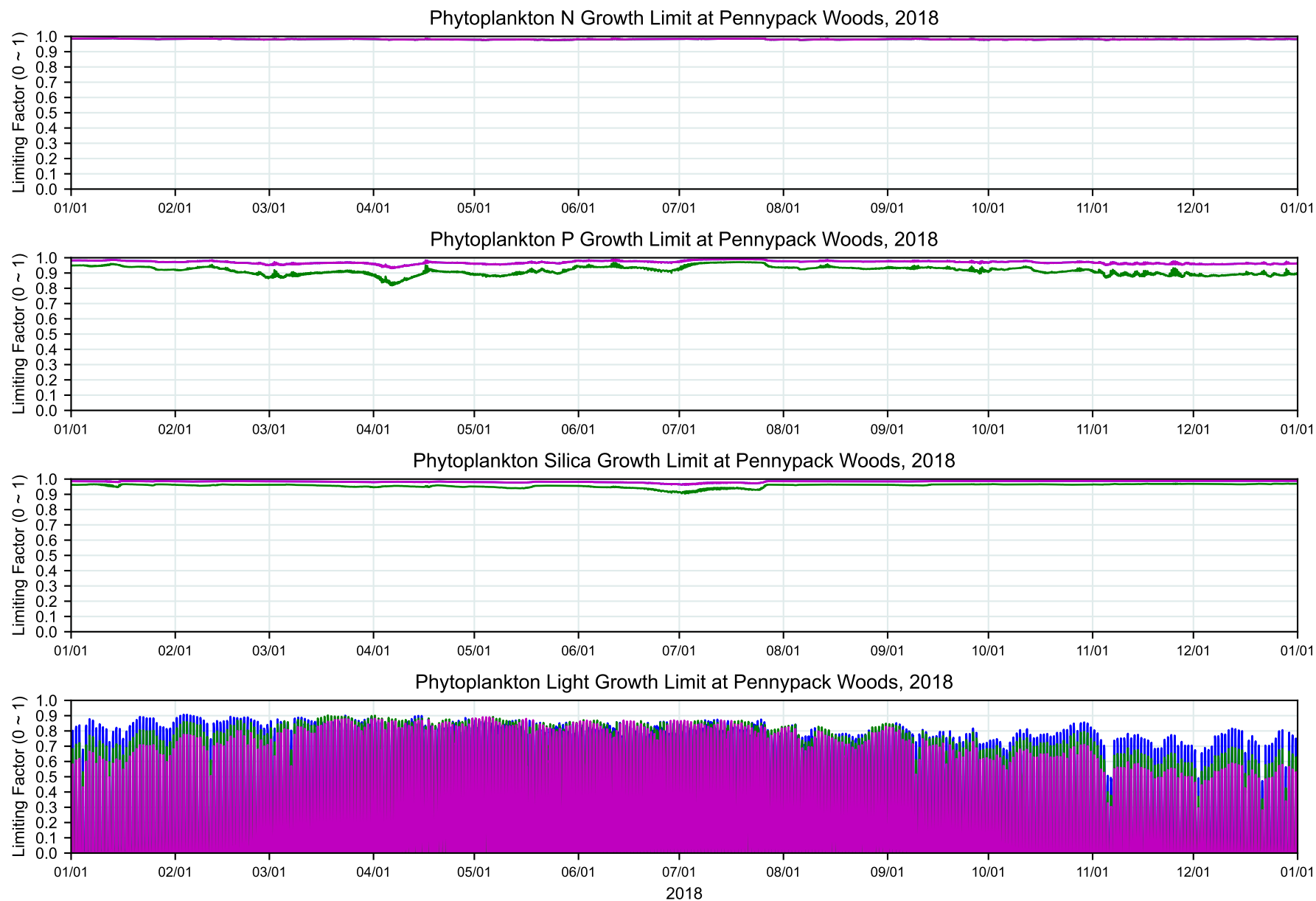
Predicted Limiting Factors for Phytoplankton Growth at Chester for 2018

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: WASP_G7pt2_3D_202208-01



Predicted Limiting Factors for Phytoplankton Growth at Chester for 2019

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: WASP_G7pt2_3D_202208-01

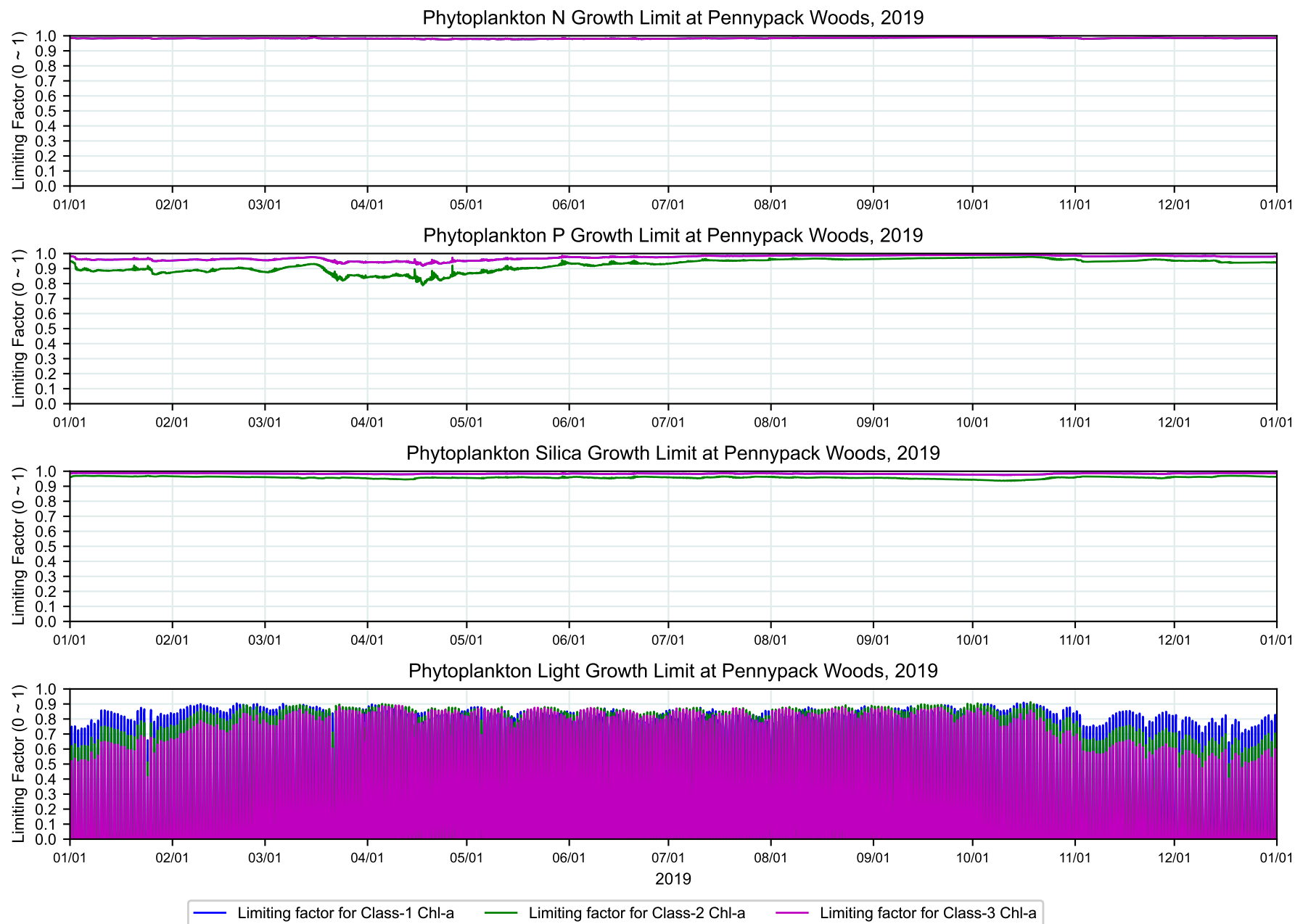


— Limiting factor for Class-1 Chl-a
 — Limiting factor for Class-2 Chl-a
 — Limiting factor for Class-3 Chl-a



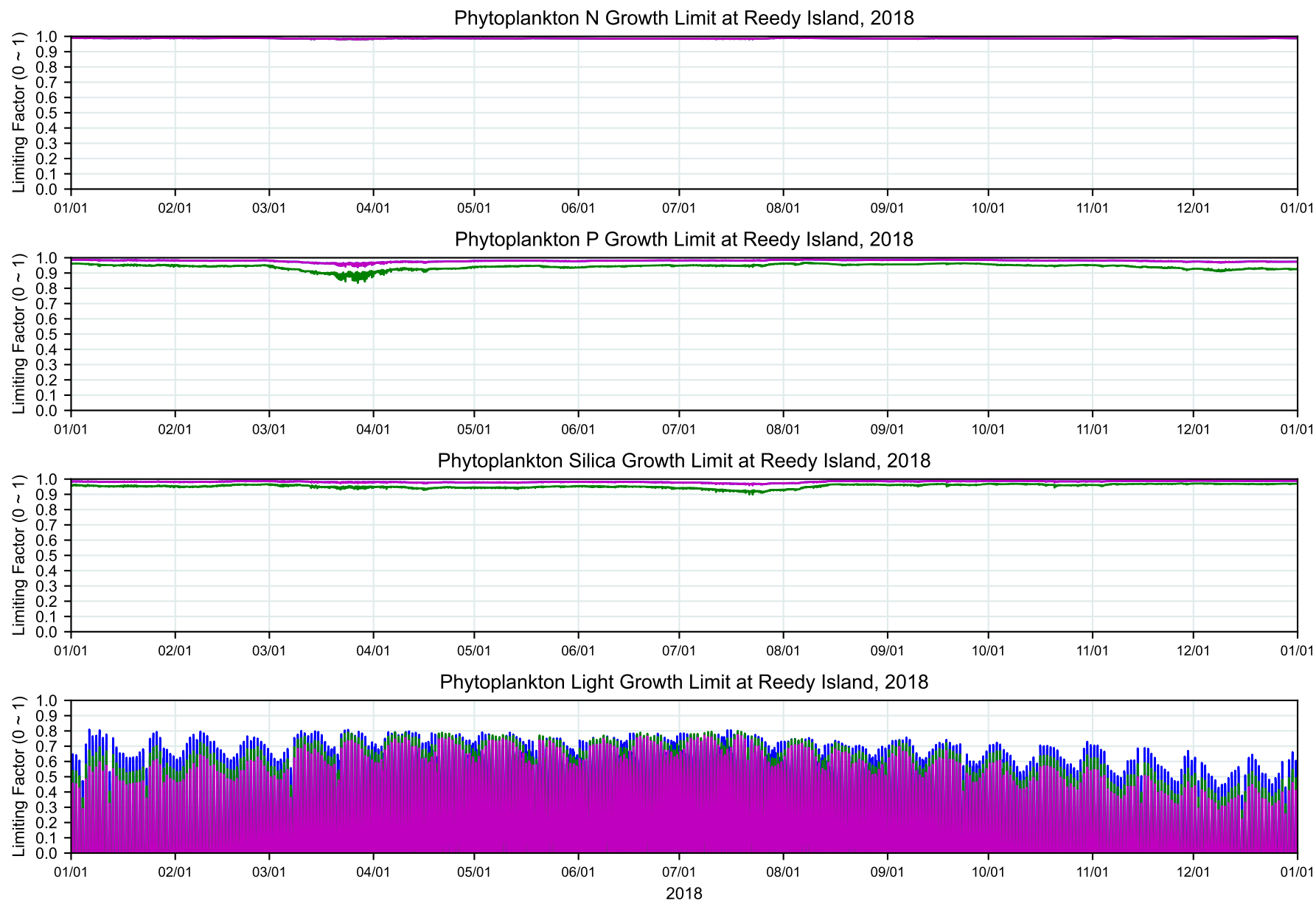
Predicted Limiting Factors for Phytoplankton Growth at Pennypack Woods for 2018

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
 WASP Model Run: WASP_G7pt2_3D_202208-01



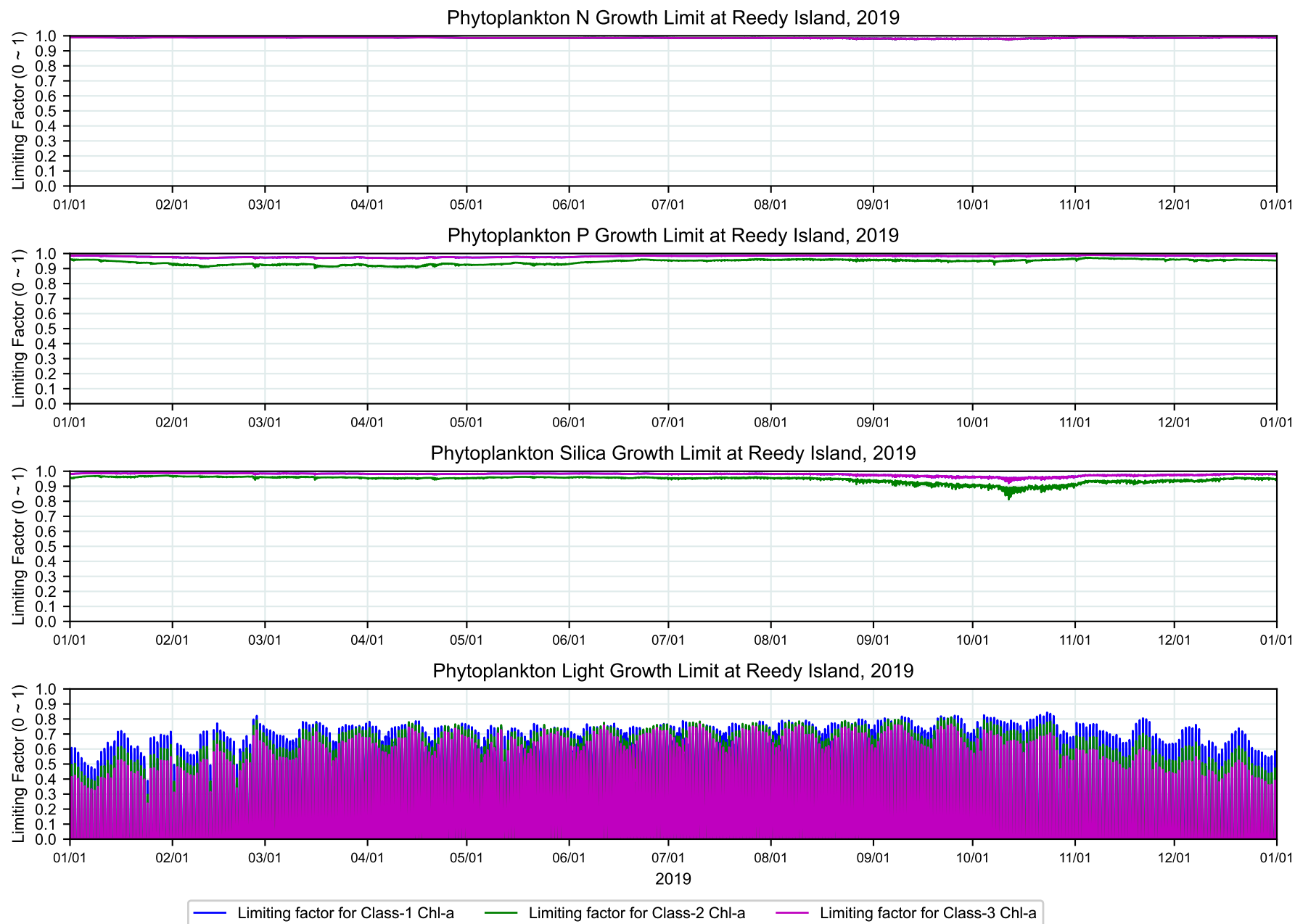
Predicted Limiting Factors for Phytoplankton Growth at Pennypack Woods for 2019

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: WASP_G7pt2_3D_202208-01



Predicted Limiting Factors for Phytoplankton Growth at Reedy Island for 2018

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: WASP_G7pt2_3D_202208-01



Predicted Limiting Factors for Phytoplankton Growth at Reedy Island for 2019

WASP Model output time interval is 2 hours. Results were based on layer K from 12 to 12.
WASP Model Run: WASP_G7pt2_3D_202208-01