

Nutrients removal by *Rotala rotundifolia*: a superior candidate for ecosystems remediation at low temperature

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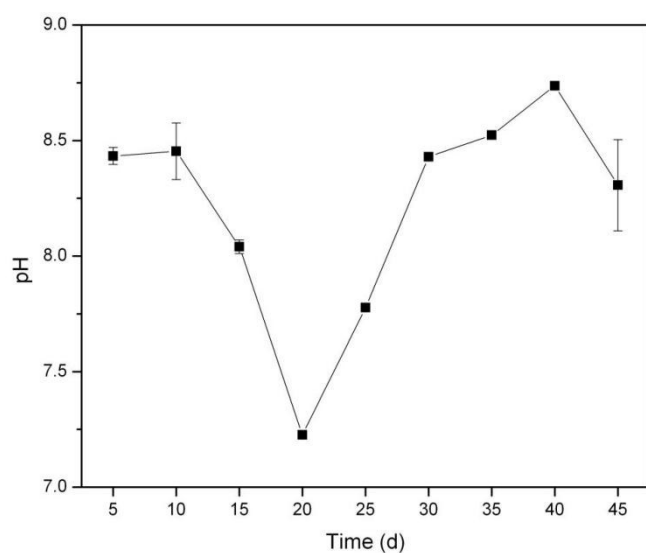


Fig. S1 pH change during the period of pollutants removal at normal temperature.

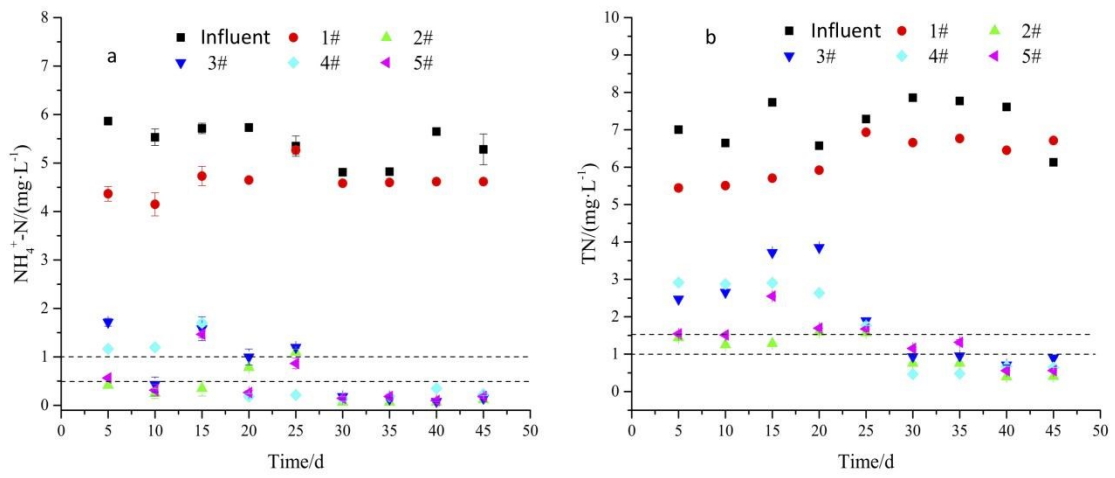


Fig. S2 $\text{NH}_4^+\text{-N}$ (a) and TN (b) removal with and without plant (1#-without plant; 2#-*R. rotundifolia*)

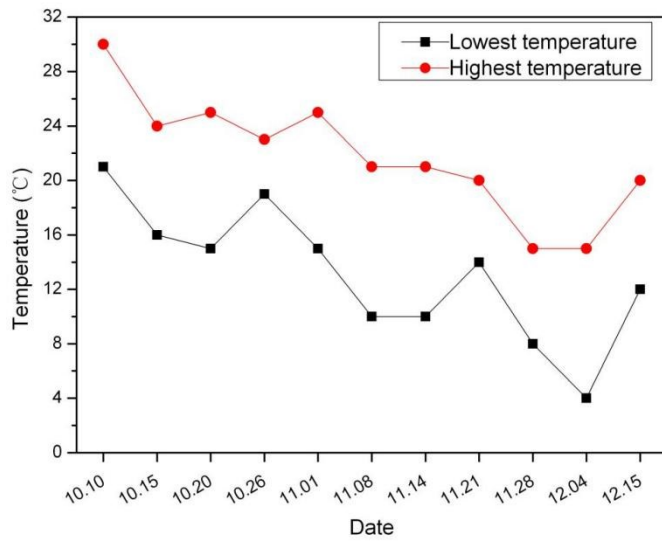


Fig. S3 Variation of atmospheric temperature from October 10th to December 15th in 2019 in Wenzhou City, China

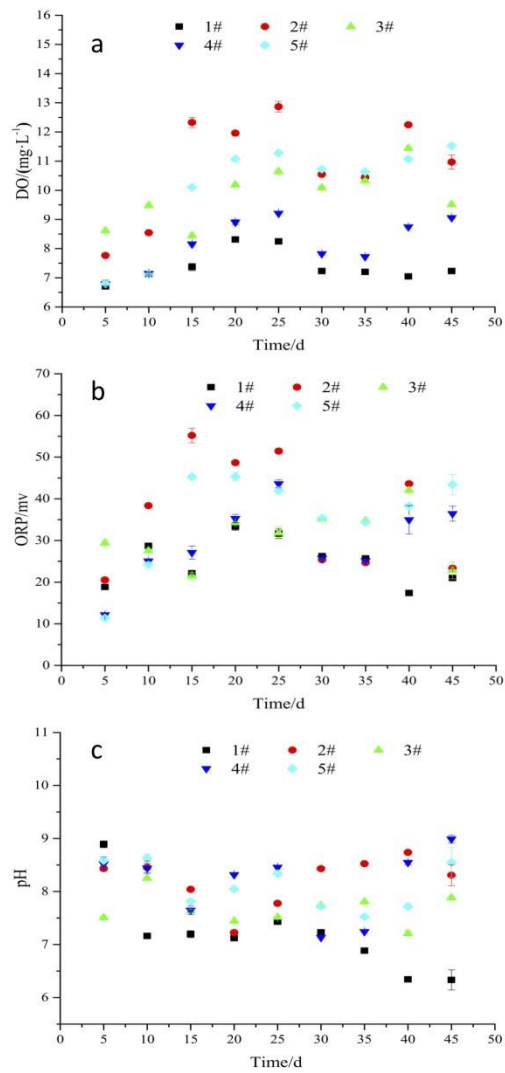


Fig. S4 Changing trend of DO (a), ORP (b) and pH (c) in the overlying water of *R. rotundifolia* at around 28 °C (1#-without plant; 2#-*R. rotundifolia*)

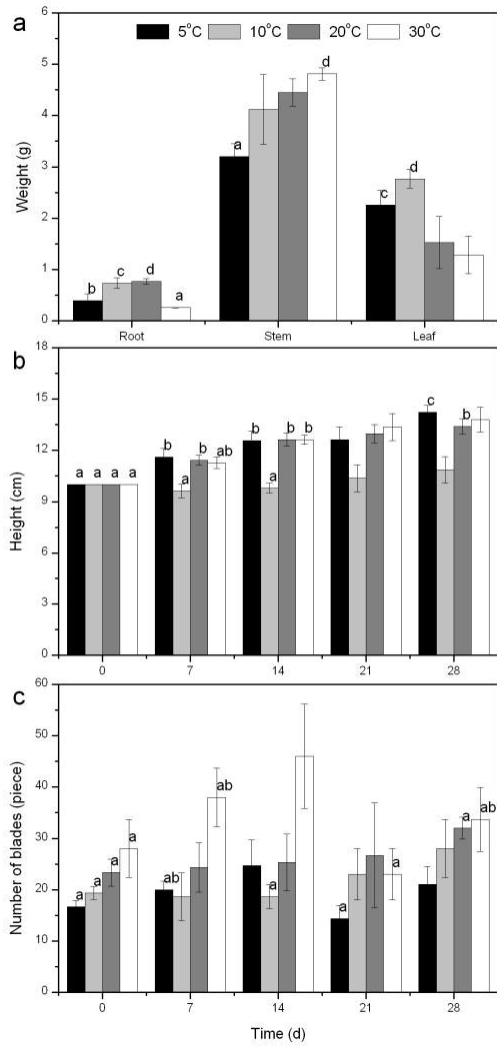


Fig. S5 Organs fresh weight (a), plant height (b) and blades number (c) of *R.rotundifolia*

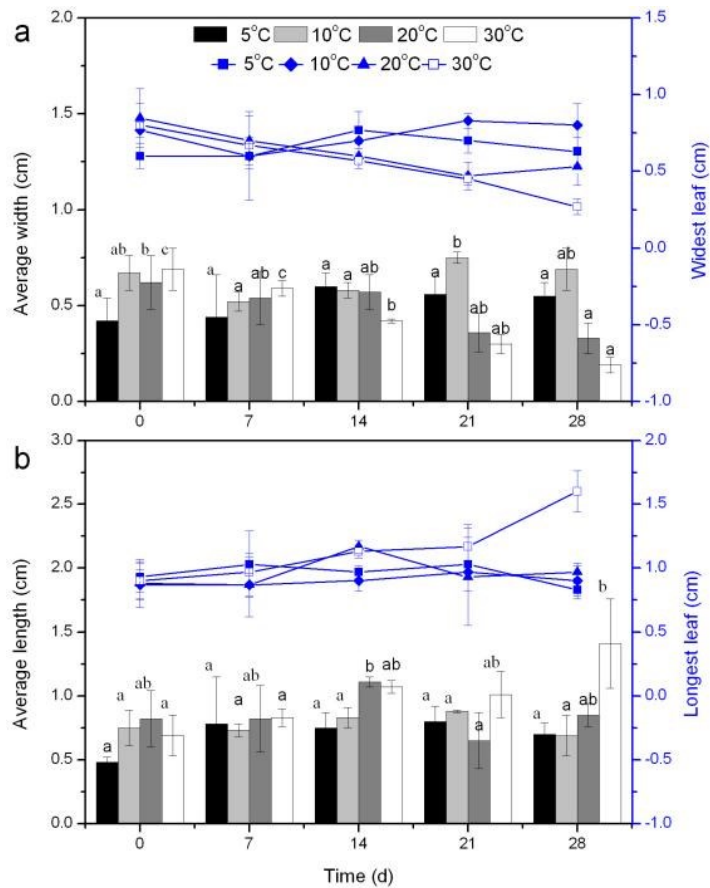


Fig. S6 Variation trend for leaf width (a) and length (b) of *R. rotundifolia*

Table S1 Plant fresh weight (PFW) of the submerged *R. rotundifolia* before and after experiment.

Data was presented as means±S.D.

Time (d)	PFW (g)			
	5 °C	10 °C	20 °C	30 °C
0	5.00±0.02	5.34±0.07	5.17±0.09	5.23±0.15
28	5.85±0.28	7.61±0.95	6.74±0.30	6.35±0.29

Table S2 *R.rotundifolia* tillers number over time

Temperature (°C)	Time (d)				
	0	7	14	21	28
5	0	0	1	2	4
10	0	10	17	20	24
20	0	1	8	9	15
30	0	2	4	7	13

Table S3 Comparison of working temperature between *R. rotundifolia* and some plants

	<i>Myriophyllum spicatum</i>	<i>Ceratophyllum demersum</i>	<i>Vallisneria natans</i>	<i>Potamogeton crispus</i>	<i>Rotala rotundifolia</i>
Working temperature	25 °C	28-32 °C	18.5–23 °C	around 4 °C	4-28°C
Reference	[1]	[2]	[3]	[4]	This study

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