

## Supplementary data

### Removal of total nitrogen and phosphorus using single or combinations of aquatic plants

Feng Su <sup>1,4</sup>, Zhian Li <sup>1,3</sup>, Yingwen Li <sup>1</sup>, Lei Xu <sup>1,4</sup>, Shiyu Li <sup>1,4</sup>, Yongxing Li <sup>1</sup>, Hongfeng Chen <sup>1,2</sup>, Ping Zhuang <sup>1,3,\*</sup>, and Faguo Wang <sup>1,2,\*</sup>

South China Botanical Garden, Chinese Academy of Sciences, Guangzhou 510650, PR China

<sup>2</sup> Key Laboratory of Plant Resources Conservation and Sustainable Utilization, Guangdong Provincial Key Laboratory of Applied Botany, South China Botanical Garden, Chinese Academy of Sciences, Guangzhou 510650, PR China

<sup>3</sup> Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou), Guangzhou 511458, PR China

<sup>4</sup> University of Chinese Academy of Sciences, Beijing 100049, PR China

\* Correspondence: zhuangp@scbg.ac.cn (Z.P.), Tel.: +86-20-37252905, Fax: +86-20-37252905; wangfg@scbg.ac.cn (F.W.)

**Table S1. Biomass production of aquatic plants in the screening experiments grow for 36 days (n=3)**

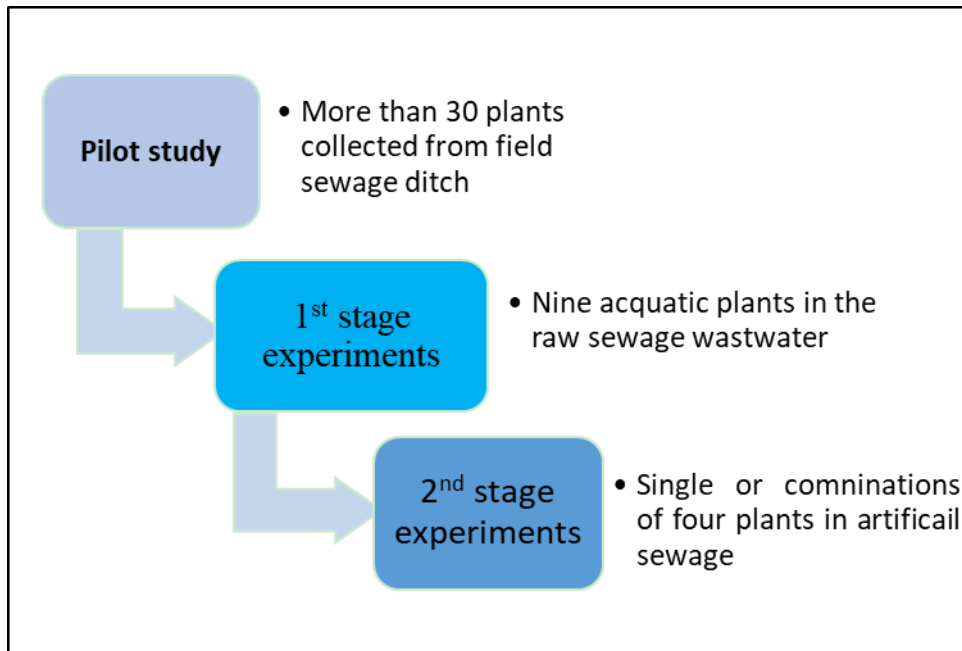
	Initial biomass (day 1)	Final biomass (day 36)	Mean net increase (g/tank)	Relative biomass increase
<i>Colocasia tonnoimo</i>	203±10.34	163±10.05	-42.08	-20.4%
<i>Dysophylla sampsonii</i>	102±0.14	32.0±4.38	-69.51	-68.5%
<i>Eichhornia crassipes</i>	177±6.89	230±37.33	52.74	46.0%
<i>Eleocharis plantagineiformis</i>	259±68.00	230±2.67	-29.00	-13.0%
<i>Hydrocotyle vulgaris</i>	238±27.17	385±20.13	146.7	64.1%
<i>Ipomoea aquatica</i>	150±0.36	156±4.24	5.73	3.8%
<i>Rotala indica</i>	149±0.93	163±2.12	13.82	9.2%
<i>Salvinia natans</i>	100±0.06	214±7.18	113.87	114.0%
<i>Typha orientalis</i>	466±0.29	377±15.68	-88.50	-19.0%

**Table S2. Plant biomass development during treatment (g/tank, n=3, fresh weight)**

Plants	Artificial domestic wastewater						Artificial animal farm wastewater					
	Initial	Day 11	Day 36	Day 48	Total	Increase	Initial	Day 11	Day 36	Day 48	Total	Increase
<i>E. plantagineiformis</i>	74.8	11.7	0.00	94.0	106	41.4%	67.2	10.2	0.00	52.4	62.5	-6.91%
<i>Hydrocotyle vulgaris</i>	67.1	4.7	5.50	46.6	56.8	-15.3%	71.1	3.21	30.5	26.2	59.9	-15.7%
<i>Ipomoea aquatica</i>	46.3	36.2	25.4	22.0	83.5	80.5%	48.1	22.4	7.96	21.8	52.1	8.44%
<i>Salvinia natans</i>	39.8	66.1	45.5	22.1	133.7	235%	39.7	27.6	36.2	25.5	89.3	125%
<i>Salvinia natans</i> + <i>E. plantagineiformis</i>	107	78.8	38.0	56.6	173	62.8%	120	9.68	13.6	92.0	115	-4.20%
<i>Hydrocotyle vulgaris</i> + <i>E.plantagineiformis</i>	147	13.9	0.00	79.9	93.7	-36.3%	149	18.1	0.00	86.3	104	-25.1%
<i>Ipomoea aquatica</i> + <i>E.plantagineiformis</i>	127	47.4	15.2	71.2	134	5.14%	128	20.8	14.7	13.9	149	16.4%
<i>Salvinia natans</i> + <i>E.plantagineiformis</i> + <i>H.vulgaris</i>	87.8	24.1	19.0	75.4	118	34.9%	87.4	8.33	18.9	97.8	125	27.9%



**Figure 1.** Locations of the drainage ditch (Cencun River) flowing through the South China Botanical Garden, Guangzhou, China.



**Figure S2.** The flowchart of this study.