

## **Electronic Supplementary Material**

Title: The ability of seeds to float with water currents contributes to the invasion success of *Impatiens balfourii* and *I. glandulifera*

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**Table S1.** Data on the physical characteristics of the seeds from the non-invasive alien species ('NIAS') *Impatiens balfourii* and the invasive alien species ('IAS') *I. glandulifera* populations. The data were used to assessed the seed size, circularity and aspect ratio. The table includes average values ( $\pm$  SD) of the seed area, seed weight, seed perimeter and the length of major and minor seed axes.

Population age	Area [mm <sup>2</sup> ]	Perimeter [mm]	Major axis [mm]	Minor axis [mm]	Circularity	Weight [g]	Ss Index [mm <sup>2</sup> /g]
<b><i>I. balfourii</i> (NIAS):</b>							
Younger population	4.42 $\pm$ 0.81	8.18 $\pm$ 0.73	2.89 $\pm$ 0.24	1.93 $\pm$ 0.24	0.82 $\pm$ 0.03	1.60 $\pm$ 0.51	3.46 $\pm$ 2.33
Older population	4.05 $\pm$ 0.71	7.73 $\pm$ 0.64	2.72 $\pm$ 0.24	1.89 $\pm$ 0.24	0.85 $\pm$ 0.04	1.54 $\pm$ 0.90	4.16 $\pm$ 3.87
<b><i>I. glandulifera</i> (IAS):</b>							
Younger population	9.23 $\pm$ 2.09	11.61 $\pm$ 1.33	3.75 $\pm$ 7.25	3.09 $\pm$ 0.44	0.85 $\pm$ 0.03	3.95 $\pm$ 1.11	2.56 $\pm$ 1.04
Older population	9.13 $\pm$ 2.15	11.82 $\pm$ 1.39	3.99 $\pm$ 0.44	2.88 $\pm$ 0.44	0.81 $\pm$ 0.05	1.16 $\pm$ 0.35	9.99 $\pm$ 8.18

**Table S2.** Data on the roughness of the seeds from the non-invasive alien species ('NIAS') *Impatiens balfourii* and the invasive alien species ('IAS') *I. glandulifera* populations. Sa – Arithmetical mean height, Sq – Root mean square height, Sp – Maximum peak height.

Population age	Seed no.	Sa [ $\mu\text{m}$ ]	Sq [ $\mu\text{m}$ ]	Sp [ $\mu\text{m}$ ]
<b><i>I. balfourii</i> (NIAS):</b>				
Younger population	1	6.78	8.77	318.15
	2	8.25	10.04	30.98
	3	8.83	11.55	39.81
Older population	1	11.93	14.89	307.84
	2	4.20	5.20	18.68
	3	7.66	9.45	39.21
<b><i>I. glandulifera</i> (IAS):</b>				
Younger population	1	6.89	9.09	32.28
	2	12.73	15.97	39.37
	3	6.94	8.67	35.64
Older population	1	18.94	23.66	565.86
	2	10.56	13.10	34.36
	3	5.85	7.36	31.05