

Table 1. Vegetation and wave parameters for each experimental scenario.

Case ^a	Vegetation type	m^b (m ⁻²)	d^c (cm)	h_v^d (m)	h^e (m)	a_w^f (cm)	T^g (s)	λ^h (m)	k^i (m ⁻¹)	u_{wmax}^j (cm/s)	E_w^k (cm)	KC^l	E_w/S^m	Re_d^n
S0	-	-	-	-	2.20	1.75	2.0	6.1	1.03	4.0	1.27	-	-	-
A1	<i>A. selengensis</i>	480	0.5	0.90	0.65	0.45	1.1	1.8	3.41	1.5	0.26	3.3	0.06	90.3
A2	<i>A. selengensis</i>	420	0.5	1.00	0.90	0.42	1.6	3.6	1.72	2.5	0.64	8.0	0.13	47.5
A3	<i>P. arundinacea</i>	120	0.5	0.65	1.15	0.46	1.4	3.0	2.09	2.0	0.45	5.6	0.05	15.6
A4	<i>C. cinerascens</i>	1260	0.3	0.20	0.80	1.88	1.1	1.9	3.36	2.3	0.40	8.4	0.12	3.7
A5	<i>P. arundinacea</i>	520	0.5	1.00	1.80	3.66	1.1	1.9	3.33	1.0	0.18	2.2	0.04	14.2
B1	<i>P. arundinacea</i>	240	0.5	1.30	0.67	0.76	2.0	4.5	1.38	6.0	1.91	24.0	0.30	22.7
B2	<i>P. arundinacea</i>	280	0.5	0.60	1.66	1.41	1.7	4.4	1.42	2.0	0.54	6.8	0.08	26.8
B3	<i>P. arundinacea</i>	280	0.5	0.60	0.60	0.35	1.0	1.5	4.09	1.8	0.29	3.6	0.05	50.2
B4	<i>P. arundinacea</i>	320	0.5	0.90	0.90	1.06	1.0	1.6	4.03	5.5	0.88	11.0	0.16	41.3
B5	<i>P. arundinacea</i>	300	0.5	0.70	1.00	0.40	1.0	1.6	4.03	1.3	0.21	2.6	0.03	33.1

^aS0 was the bare bed case. A1 ~ A5 and B1 ~ B5 were cases with the influence of AV and located in sites A and B (Fig. 1b), respectively.

^bStem density (stems per unit area). Please note that several stems are grown for each individual plant of *A. selengensis* and *P. arundinacea*. *C. cinerascens* was composed of basal blades, so that its stem density in present study referred to the numbers of blade per unit area.

^cStem diameter. For *C. cinerascens* this table gave the value of mean blade width.

^{d, e}Height of vegetation (h_v) and water depth (h).

^fWave amplitude calculated by fitting eq. (6) to measured horizontal wave velocity (U_{w_horiz}) at the highest three measurement points.

^gWave period calculated as $T = 1/f_p$ with f_p the peak frequency of the wave domain in the power spectral density of instantaneous vertical velocity.

^{h, i}Wave length ($\lambda = 2\pi/k$) and wave number (k) estimated by linear wave theory, i.e., $\omega^2 = (kg)\tanh(kh)$, with ω ($= 2\pi/T$) the wave radian frequency, g the gravitational acceleration, and h the water depth.

^jMaximum velocity in wave cycle.

^kWave excursion (radius of wave orbital motion) estimated by $E_w = u_{wmax}T/(2\pi)$.

^l*Keulegan-Carpenter* number estimated as $KC = u_{wmax}T/d$.

^mRatio of wave excursion (E_w) to stem spacing (S) with $S = m^{-1/2}$.

ⁿStem Reynolds number estimated by $Re_d = U_{horiz}d/\nu$ (with $\nu = 10^{-6}$ the water kinematic viscosity) within the vegetation.