

Figure S1. Location of experimental plots A–C in a coastal *Pinus thunbergii* forest.

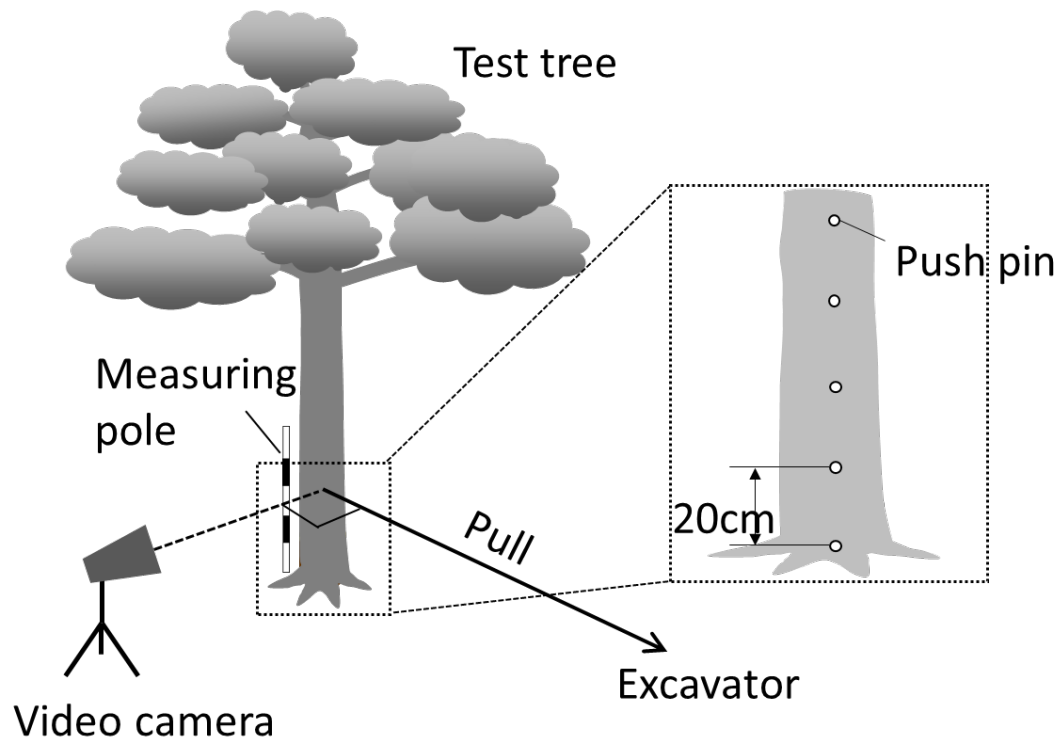


Figure S2. Video shooting method to measure the depth at the center point of rotation (Dcp) in *P. thunbergii* trees in a tree-pulling experiment.



Figure S3. Example of change in applied force with the pulling time in a *P. thunbergii* tree during the pulling experiment (ex. plotA-1).

Table S1. Characteristics of *Pinus thunbergii* trees and soils at Plot A, B and C (min–max values or mean values \pm SE).

	Plot A	Plot B	Plot C
Distance from the shoreline (m)	188–199	150–270 ^c	620–740 ^c
Elevation above sea level (m)	0.88–1.42 ^{a,b}	0.48–1.61 ^c	1.88–2.83 ^c
Ground water table depth ^d (cm)	175 \pm 8.7 ^b	94 \pm 28 ^c	>240 ^c
Soil water content ^e (%)			
0–10 cm depth	n.d.	14.8 \pm 2.9 ^c	6.8 \pm 1.0 ^c
20–30 cm depth	2.1–3.1 ^b	5.8 \pm 0.3 ^c	2.5 \pm 0.3 ^c
Canopy layer tree species	<i>P. thunbergii</i>	<i>P. thunbergii</i>	<i>P. thunbergii</i>
<i>P. thunbergii</i> trees ^f			
DBH (cm)	17.2 \pm 0.9	15.4 \pm 1.1 ^c	16.4 \pm 1.2 ^c
H (m)	9.8 \pm 0.2	5.5 \pm 0.3 ^c	10.2 \pm 0.7 ^c
Crown width (m)	3.4 \pm 0.2	3.8 \pm 0.3 ^c	3.2 \pm 0.2 ^c
Distance (m)			
to adjacent <i>P. thunbergii</i>	n.d.	4.1 \pm 0.6 ^c	2.3 \pm 0.3 ^c
Density (no. ha ⁻¹)	100–200	200–400 ^c	400–1000 ^c
Understory species	<i>Pittosporum tobira</i> ^b	<i>Robinia pseudoacacia</i> ^c	<i>Quercus phillyraeoides</i> ^c
	<i>Quercus phillyraeoides</i> ^b	<i>Pittosporum tobira</i> ^c	<i>Cinnamomum camphora</i> ^c
	<i>Rhus javanica</i>		<i>Toxicodendron sylvestric</i> ^c
	var. <i>chinensis</i> ^b		

DBH: stem diameter at breast height.

H: tree height.

n.d.: not determined.

a Data from Todo et al. [42].

b Data from Tanaka et al. [41].

c Data from Todo et al. [7] and Hirano et al. [8].

d Plot A ($n = 3$), Plot B ($n = 3$), Plot C ($n = 1$).

e Plot A (number of data unknown), Plot B ($n = 13$), Plot C ($n = 14$).

f Plot A ($n = 13$), Plot B ($n = 17$), Plot C ($n = 24$).

References

7. Todo, C.; Tokoro, C.; Yamase, K.; Tanikawa, T.; Ohashi, M.; Ikeno, H.; Dannoura, M.; Miyatani, K.; Doi, R.; Hirano, Y. Sta-bility of *Pinus thunbergii* between Two Contrasting Stands at Differing Distances from the Coastline. *For. Ecol. Manag.* 2019, 431, 44–53. <https://doi.org/10.1016/j.foreco.2018.05.040>.
8. Hirano, Y.; Todo, C.; Yamase, K.; Tanikawa, T.; Dannoura, M.; Ohashi, M.; Doi, R.; Wada, R.; Ikeno, H. Quantification of the Contrasting Root Systems of *Pinus thunbergii* in Soils With Different Groundwater Levels in a Coastal Forest in Japan. *Plant Soil.* 2018, 426, 327–337. <https://doi.org/10.1007/s11104-018-3630-9>.
41. Tanaka, J.; Nakazawa, H.; Satou, T. Case Study of Root Systems Growth of *Pinus thunbergii* Parlature and Groundwater Level in the Nishinohama Coastal Forest, Tahara City, Aichi Prefecture. *J. Jpn. Soc. Re-veget Tec.* 2017, 43, 298–301. (in Japanese). <https://doi.org/10.7211/jjsrt.43.298>.
42. Todo, C.; Ikeno, H.; Yamase, K.; Tanikawa, T.; Ohashi, M.; Dannoura, M.; Kimura, T.; Hirano, Y. Reconstruction of Conifer Root Systems Mapped With Point Cloud Data Obtained by 3D Laser Scanning Compared With Manual Measurement. *Forests.* 2021, 12, 1117. <https://doi.org/10.3390/f12081117>.