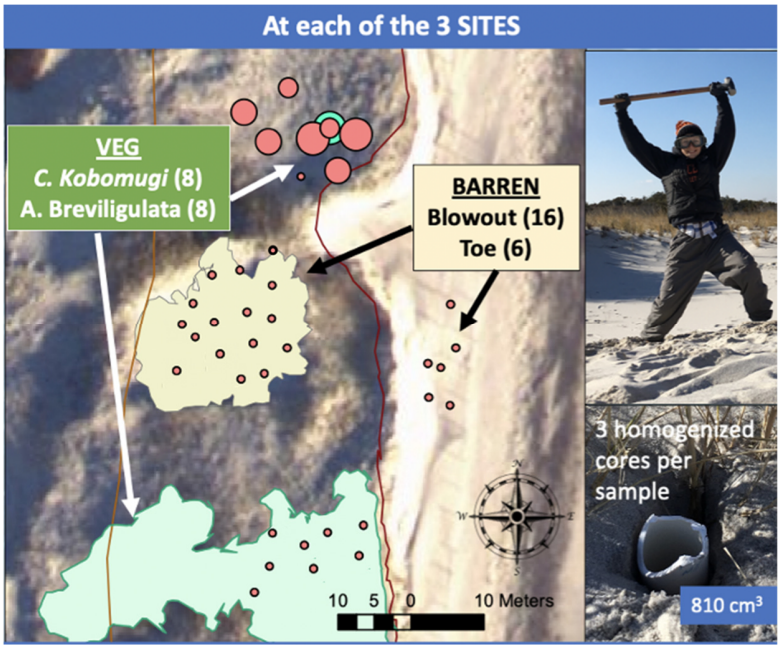
Supplementary S1: Field Collection Details

Each of the three sites left to right (north to south). Coordinates reflect blowout centers.
Beach access 17: 39°48'8.85"N, 74° 5'30.13"W
Beach access 19: 39°47'49.46"N, 74° 5'34.10"W
Beach access 21: 39°47'31.35"N, 74° 5'37.15"W

At each site we collected 33 cores for 114 total samples. Please ignore circle sizes, they and andy differences in point color are irrelevant here as these reflected differences in arbuscular mycorrhizal colonization of samples as presented in Charbonneau, 2019



A vegetated stand of invasive *Carex kobomugi* colonizing into a barren blowout.

Two of the three blowout sites. Native *Ammophila breviligulata* is in the foreground

Supplementary S2: Edaphic Analyses

We did not systematically collect edaphic data with cores as preliminary analyses on a December 2016 core subset of 10 total cores, three *A. breviligulata* samples, three *C. kobomugi* samples, three blowout samples, and one foredune tow sample revealed low exchangeable cations and base saturation across microhabitats. On 1.5 g of each of these samples, we performed Cohex analyses for the effective cation-exchange capacity (CEC) of Ca, Mg, K, Na and base saturation (Sat) of micro- and macro-nutrients. We performed the analyses according to the ISO 23470 standard (hexamminecobalt trichloride extraction, at soil pH) via inductively coupled plasma and atomic emission spectrometry (ICP-AES) with a Thermo Fisher Scientificã iCAP 6000 series. There were no differences in mean levels of macro- or micro-nutrients or CEC as analyzed with ANOVA ($P > 0.05$). The below table shows mean ± SE results of the Cohex analyses for the different macro and micronutrients.

Element	Macro- & Micro-Nutrients Sat (mg kg^{-1})	CEC (meq/100 g)
Na	1.47 ± 0.12	14.29 ± 1.18
Mg	0.68 ± 0.10	6.66 ± 0.95
K	0.85 ± 0.10	8.28 ± 0.93
Ca	2.67 ± 0.18	25.89 ± 1.67
Cr	0.01 ± 0.00	
Mn	< 0.005	
Fe	0.06 ± 0.00	
Ni	< 0.0015	
Cu	0.19 ± 0.00	
Zn	< 0.005	
Cd	< 0.004	
Al	0.12 ± 0.01	