

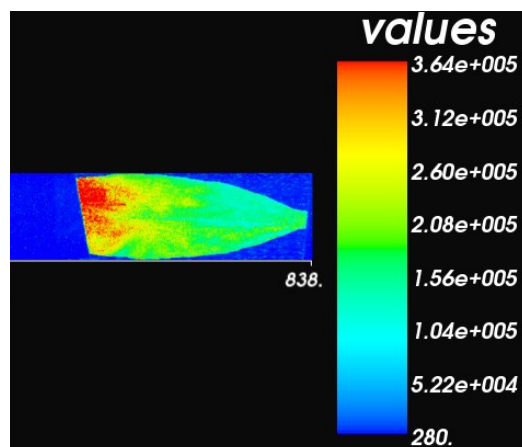
### Electronic supplementary information 1

Leaf elemental concentrations in mg kg<sup>-1</sup> dry mass from each treatment and ecotype. Values represent the mean concentration from three biological replicates.

Sample	Ni	Zn	Cd
Control Le Bleynard	0.9	1030	3.8
Control Basadre	2.5	1060	11
Control Prayon	0.7	650	8.9
Control Bradford Dale			
Dale	1.1	870	1.2
Cd Le Bleynard	160	1400	680
Cd Basadre	8.4	1800	940
Cd Prayon	0.6	1700	62
Cd Bradford Dale	4.0	1700	520
Ni Le Bleynard	380	1100	22
Ni Basadre	870	1400	18
Ni Prayon	77	810	25
Ni Bradford Dale	740	1300	4.7
Zn Le Bleynard	0.3	4000	21
Zn Basadre	1.4	3500	7.9
Zn Prayon	1.6	8000	5.5
Zn Bradford Dale	2.2	2300	58

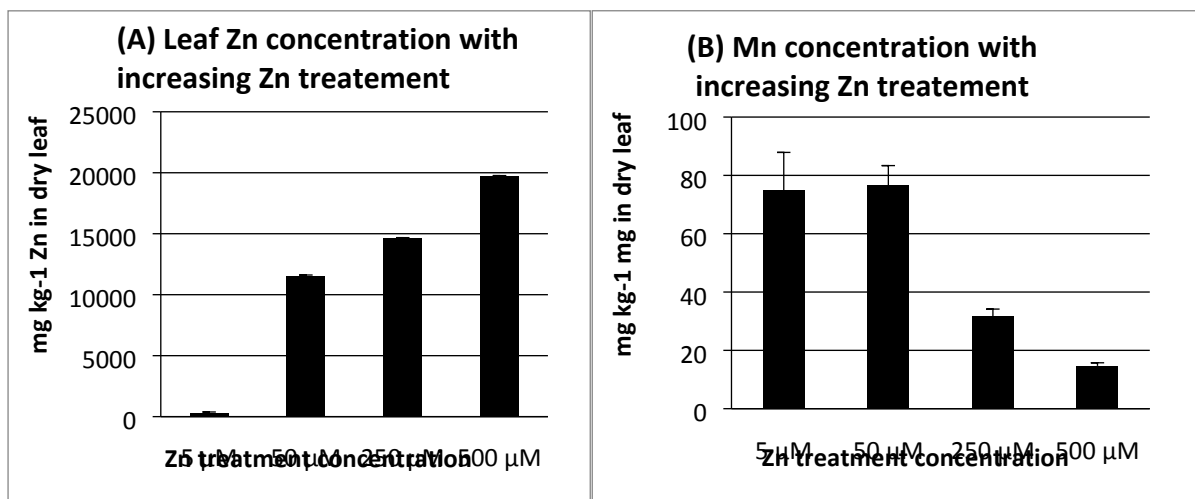
### Electronic supplementary information 2

Elemental image of the Zn treated Prayon ecotype. The full top section of the leaf (left hand side) was not collected. The same pattern can still be observed however with high concentrations of Zn in the leaf tip (left hand side).



### Electronic supplementary information 3

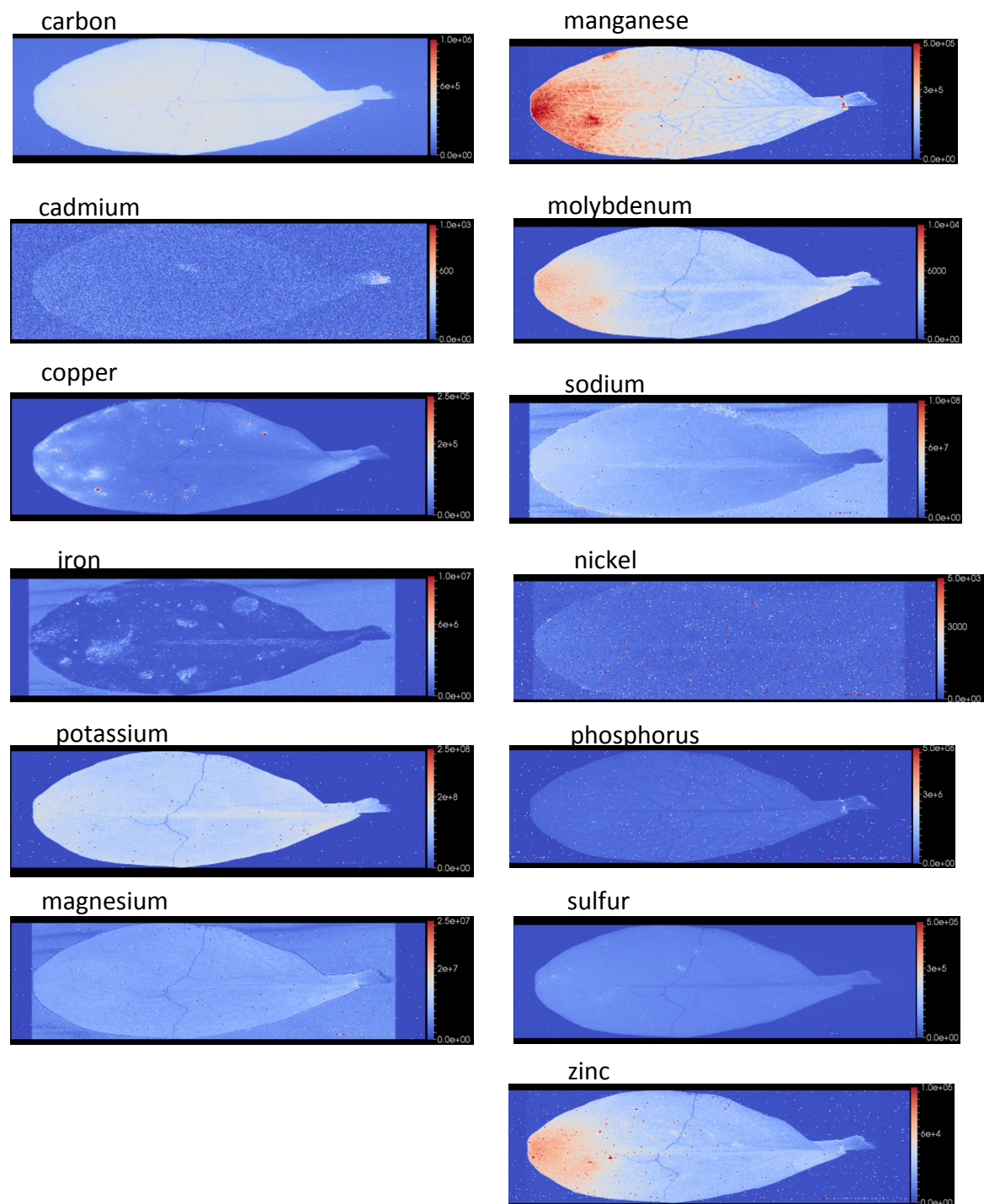
Elemental analysis of the *N. caerulea* Bradford Dale population, grown hydroponically with four different Zn treatments. (A) The mean (n=10) concentration of Zn in dried leaves of *N. caerulea* with increasing Zn treatment; (B) the mean (n=10) concentration of Mn in the same leaves. Error bars represent standard deviation.



## Electronic supplementary information 4

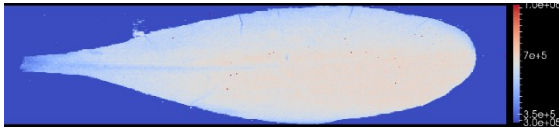
Elemental images detected from *N. caerulescens* plants grown in giffy pots watered with normal nutrient media (control) or amended with 250  $\mu\text{M}$   $\text{Ni}^{2+}$ , 500  $\mu\text{M}$   $\text{Zn}^{2+}$  or 10  $\mu\text{M}$   $\text{Cd}^{2+}$ . Intensity bar on right of image, blue low intensity, red high intensity.

Leaf elemental images from control non-treated plants

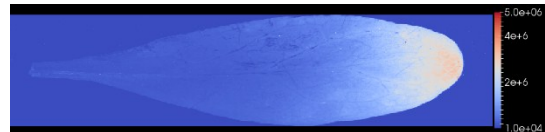


Leaf elemental images from zinc treated plant

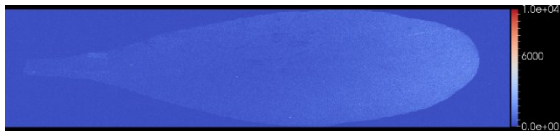
carbon



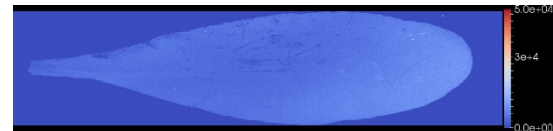
manganese



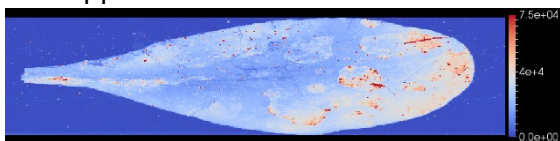
cadmium



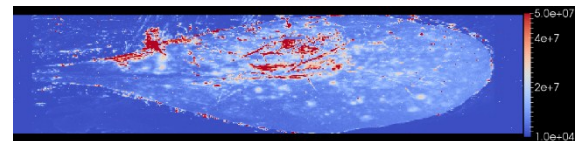
molybdenum



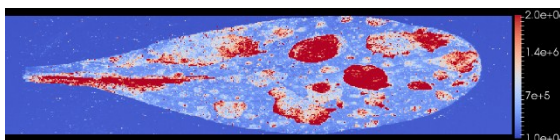
copper



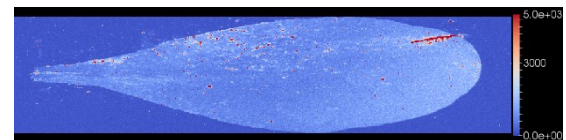
sodium



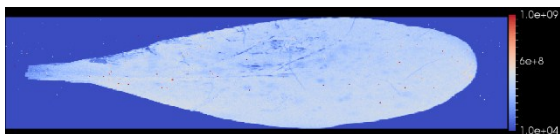
iron



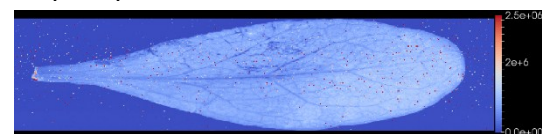
nickel



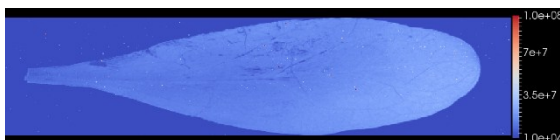
potassium



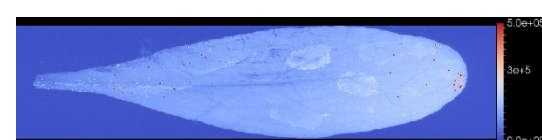
phosphorus



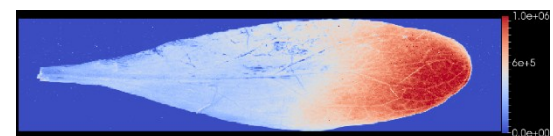
magnesium



sulfur

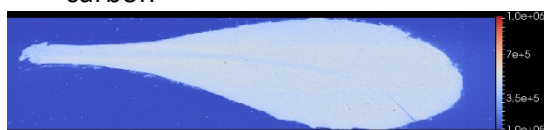


zinc

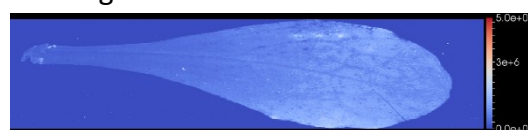


Leaf elemental images from nickel treated plant

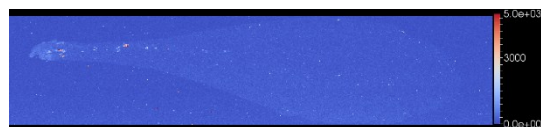
carbon



manganese



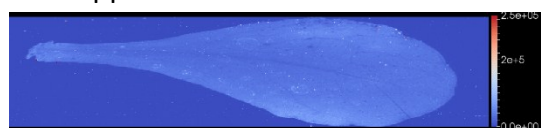
cadmium



molybdenum



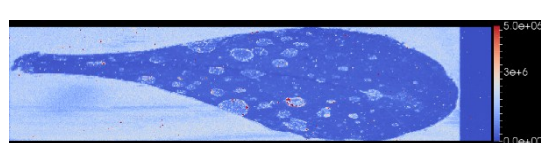
copper



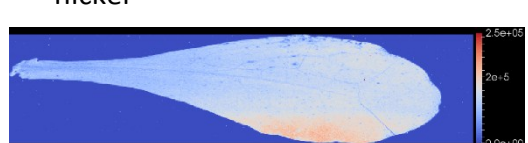
sodium



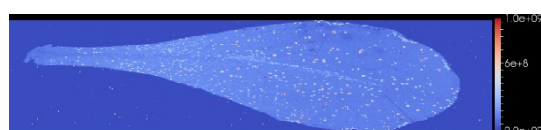
iron



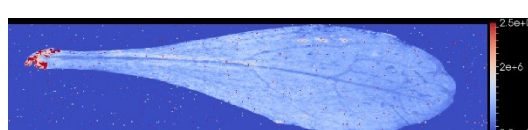
nickel



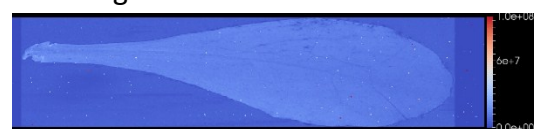
potassium



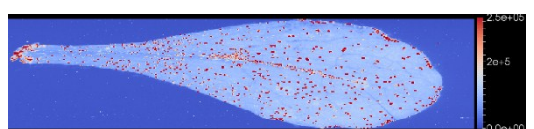
phosphorus



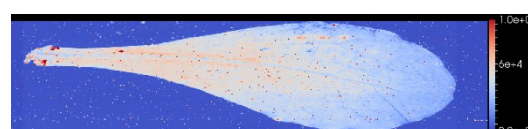
magnesium



sulfur



zinc





Leaf elemental images from cadmium treated plant

