## Plant Scale Multilevel Meta-analytic model (MMA)

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| intrcpt | 1.02424 | 0.47114 | 1.57734 | 0.23985 | 4.27028 | 0.00272 | 1.02424 | 0.23904 | 4.28487 | 0.00129 | 1.19212 | 0.25503 | 4.67446 | 0.00001 |

## Plant Scale MMA publication bias

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| intrcpt | 0.93628 | -0.02229 | 1.89486 | 0.39175 | 2.39000 | 0.05403 | 0.93628 | 0.35177 | 2.66160 | 0.02598 | 0.98537 | 0.37546 | 2.62444 | 0.00950 |
| Year | -0.02285 | -0.06730 | 0.02161 | 0.01965 | -1.16267 | 0.27487 | -0.02285 | 0.01519 | -1.50439 | 0.16674 | -0.04506 | 0.01624 | -2.77531 | 0.00616 |
| root\_inv\_ESS | 0.50026 | -1.21763 | 2.21814 | 0.86869 | 0.57588 | 0.56565 | 0.50026 | 0.37157 | 1.34633 | 0.21112 | 0.84137 | 0.86604 | 0.97151 | 0.33272 |

## Plant Scale Meta-regression (MR) - suppressed intercept, control method

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| MethodExclusion fence | 0.27812 | -3.70651 | 4.26274 | 1.62843 | 0.17079 | 0.87000 | 0.27812 | 0.73226 | 0.37981 | 0.71290 | 0.33283 | 2.41216 | 0.13798 | 0.89075 |
| MethodRepellents | 0.83088 | 0.13794 | 1.52383 | 0.28319 | 2.93399 | 0.02615 | 0.83088 | 0.30060 | 2.76409 | 0.02196 | 1.08907 | 0.32393 | 3.36203 | 0.00105 |
| Plot\_size | 0.00011 | -0.00012 | 0.00035 | 0.00012 | 0.95749 | 0.34092 | 0.00011 | 0.00006 | 1.87173 | 0.09404 | 0.00011 | 0.00018 | 0.61095 | 0.54450 |

## Plant Scale MR - suppressed intercept, control method publication bias

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| MethodExclusion fence | 0.23787 | -4.53061 | 5.00635 | 1.71748 | 0.13850 | 0.89654 | 0.23787 | 1.29248 | 0.18404 | 0.85920 | 0.29545 | 2.22110 | 0.13302 | 0.89471 |
| MethodRepellents | 0.65492 | -0.60068 | 1.91053 | 0.45224 | 1.44819 | 0.22114 | 0.65492 | 0.55294 | 1.18443 | 0.27489 | 0.77202 | 0.46328 | 1.66642 | 0.09840 |
| Plot\_size | 0.00011 | -0.00014 | 0.00035 | 0.00012 | 0.86447 | 0.38971 | 0.00011 | 0.00010 | 1.09426 | 0.31006 | 0.00010 | 0.00016 | 0.64395 | 0.52331 |
| Year | -0.01941 | -0.06664 | 0.02781 | 0.01997 | -0.97208 | 0.36339 | -0.01941 | 0.02108 | -0.92090 | 0.38774 | -0.04498 | 0.01860 | -2.41791 | 0.01706 |
| root\_inv\_ESS | 0.73460 | -1.03071 | 2.49992 | 0.89255 | 0.82303 | 0.41195 | 0.73460 | 0.52497 | 1.39933 | 0.20443 | 1.09672 | 0.90666 | 1.20963 | 0.22827 |

## Plant Scale MR - suppressed intercept, browsing taxa

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| AnimalDeer | 0.87274 | -0.02738 | 1.77286 | 0.45294 | 1.92685 | 0.05723 | 0.87274 | 0.29941 | 2.91486 | 0.01944 | 0.83806 | 0.50048 | 1.67452 | 0.09620 |
| AnimalOther | 0.73476 | -0.09072 | 1.56024 | 0.35797 | 2.05257 | 0.07421 | 0.73476 | 0.50002 | 1.46944 | 0.17991 | 1.22795 | 0.40838 | 3.00688 | 0.00311 |
| AnimalOther ungulates | 1.65403 | 0.34747 | 2.96059 | 0.65746 | 2.51580 | 0.01369 | 1.65403 | 0.44978 | 3.67744 | 0.00624 | 1.26293 | 0.82909 | 1.52327 | 0.13200 |
| Plot\_size | -0.00000 | -0.00017 | 0.00017 | 0.00009 | -0.01774 | 0.98589 | -0.00000 | 0.00004 | -0.03386 | 0.97382 | 0.00005 | 0.00014 | 0.36537 | 0.71704 |

## Plant Scale MR - suppresed intercept, browsing taxa publication bias

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| AnimalDeer | 1.18171 | -0.09779 | 2.46121 | 0.64363 | 1.83600 | 0.06981 | 1.18171 | 0.54090 | 2.18470 | 0.07160 | 0.93625 | 0.64452 | 1.45264 | 0.14931 |
| AnimalOther | 0.58941 | -0.49729 | 1.67611 | 0.44411 | 1.32716 | 0.23272 | 0.58941 | 0.60487 | 0.97443 | 0.36748 | 0.69982 | 0.46758 | 1.49668 | 0.13668 |
| AnimalOther ungulates | 2.11236 | 0.33725 | 3.88746 | 0.89294 | 2.36563 | 0.02025 | 2.11236 | 0.77530 | 2.72457 | 0.03443 | 1.61657 | 1.05961 | 1.52563 | 0.13313 |
| Plot\_size | -0.00005 | -0.00024 | 0.00013 | 0.00009 | -0.57481 | 0.56692 | -0.00005 | 0.00007 | -0.72594 | 0.49521 | 0.00000 | 0.00013 | 0.03032 | 0.97600 |
| Year | -0.03896 | -0.09301 | 0.01509 | 0.02209 | -1.76378 | 0.12822 | -0.03896 | 0.02183 | -1.78515 | 0.12449 | -0.05389 | 0.02166 | -2.48762 | 0.01454 |
| root\_inv\_ESS | 0.35053 | -1.43209 | 2.13315 | 0.90124 | 0.38894 | 0.69794 | 0.35053 | 0.62897 | 0.55730 | 0.59748 | 0.93758 | 0.93352 | 1.00435 | 0.31691 |

## Plant Scale MR - control method efficacy through time

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| intrcpt | 0.86956 | -0.00227 | 1.74138 | 0.31401 | 2.76923 | 0.05037 | 0.86956 | 0.31500 | 2.76049 | 0.02808 | 1.15814 | 0.35894 | 3.22660 | 0.00166 |
| Months | -0.47308 | -1.63217 | 0.68600 | 0.58532 | -0.80825 | 0.42057 | -0.47308 | 0.26460 | -1.78794 | 0.11693 | -0.55905 | 0.66545 | -0.84011 | 0.40228 |
| Plot\_size | 0.00012 | -0.00013 | 0.00036 | 0.00012 | 0.95358 | 0.34321 | 0.00012 | 0.00006 | 1.88774 | 0.10101 | 0.00011 | 0.00019 | 0.61022 | 0.54504 |

## Plant Scale MR - control method efficacy through time publication bias

|  | Complete case | | | | | | Robust | | | | Imputed case | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| term | est | ci.lb | ci.ub | se | stat | p.val | rob\_est | rob\_se | rob\_stat | rob\_p.val | imp\_est | imp\_se | imp\_stat | imp\_p.val |
| intrcpt | 0.80407 | -1.20492 | 2.81306 | 0.46692 | 1.72208 | 0.22720 | 0.80407 | 0.55773 | 1.44169 | 0.20896 | 0.90941 | 0.48557 | 1.87286 | 0.06399 |
| Months | -0.55415 | -1.72620 | 0.61790 | 0.59176 | -0.93645 | 0.35099 | -0.55415 | 0.32041 | -1.72951 | 0.14428 | -0.73918 | 0.66188 | -1.11678 | 0.26601 |
| Plot\_size | 0.00010 | -0.00015 | 0.00035 | 0.00013 | 0.78613 | 0.43420 | 0.00010 | 0.00010 | 0.97546 | 0.37413 | 0.00010 | 0.00016 | 0.62033 | 0.53868 |
| Year | -0.02361 | -0.08013 | 0.03290 | 0.02199 | -1.07396 | 0.33191 | -0.02361 | 0.02392 | -0.98697 | 0.36898 | -0.05054 | 0.01975 | -2.55961 | 0.01181 |
| root\_inv\_ESS | 0.65990 | -1.22022 | 2.54002 | 0.94419 | 0.69891 | 0.48671 | 0.65990 | 0.42363 | 1.55775 | 0.18003 | 1.16293 | 0.95772 | 1.21427 | 0.22673 |