Appendix A

Details for establishing the Burnham Centennial Prairie

The site was prepared by using a boom sprayer to apply Glyphosate at a 3.3% concentration in September 2009 (Monsanto, St. Louis, Missouri, USA). In January 2010, half of the bulk seed mix, containing 43 native species plus three grass cover crops (Table 1) was broadcast. In May of 2010, the other half the seed mix plus two grass cover crops were drilled into the plots. The total seeding rate for the study was 16 kg/ha of forb and native grass seed and 85 kg/ha of cover crop seed. The rationale for the split broadcast and drill approach was that some species benefit from the combination of vernalization and broadcasting, while other species benefit from the combination of spring planting and seed drilling (Bakker et al. 2003, Wilson et al. 2004, Rowe 2010). Prior to installing the experiment the cover crop *Lolium multiflorum* Lam., (Annual Rye) along with a non-native turf weed *Medicago lupulina* L. (black medick) dominated the site, creating 100% cover. The plots were herbicided a second time on June 25, 2010 with a 4% solution of Aquaneat (glyphosate) (NuFarm Americas Inc. Alsip, IL, USA). At the time of installation of the experiment, there was no live vegetation in the area where the experiment was installed.

Additional details on rearing plants in greenhouse

The planting mix was sterilized 2 hours, rested 24 hours, and sterilized another 2 hours using an autoclave. The plants were watered with a water soluble fertilizer (20-20-20) once per week, starting in May 2010, as well as top dressed with a time-release fertilizer (17-3-6) (Topdress plus minors, Scotts Miracle-Gro Company, Marysville, Ohio, USA). Starting in June 2010, the plants were given a water soluble Nitrogen only (26-0-0) (Maximum N-Pact, Loveland Products, Inc., Loveland, Colorado, USA) fertilizer in response to yellowing due to nutrient stress.

TABLE A1. Comparison of growing season precipitation in 2010-2012 to the National Weather Service 30 Year Normals (1981-2010) (National Weather Service 2014).

Year(s)	May	June	July	August	September	October
Average precipitation (cm)						
2010	13.51	18.82	13.82	10.01	9.88	5.69
2011	10.97	2.72	9.60	15.39	4.09	8.15
2012	10.49	10.31	10.19	10.13	8.41	8.23
1981-2010	10.49	10.31	10.19	10.13	8.41	8.23
2010-2012	11.66	10.62	11.20	11.84	7.46	7.36
Deviation of 2010-2012 average from 30 year average (cm)	1.17	0.30	1.02	1.71	-0.95	-0.87

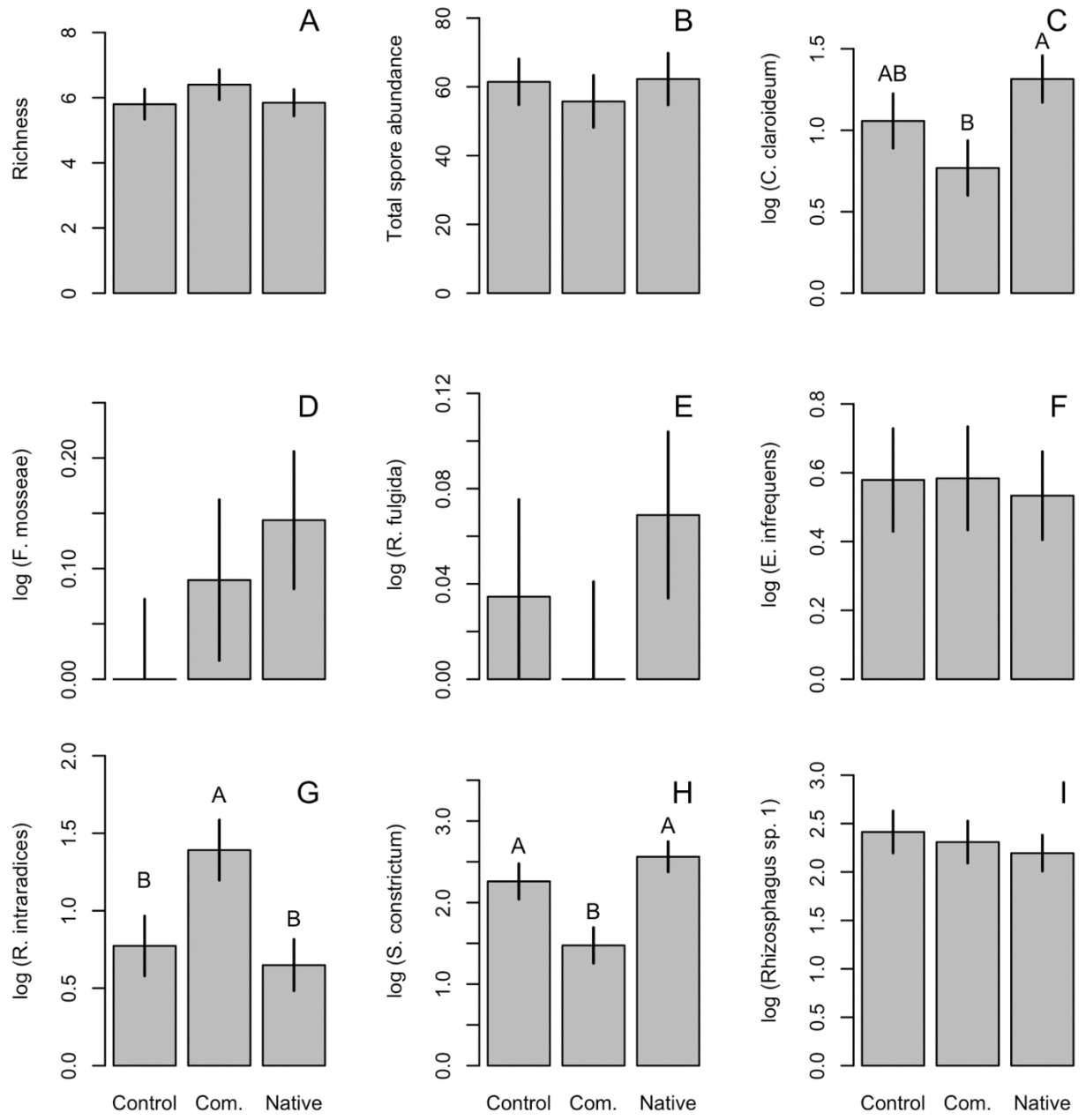

FIG. A1. Summary of richness (A), total spore abundance (B) and individual AMF species mean (log) spore abundances (C-I) for spores counted across the three treatments. *C. claroideum* and *R. fulgida* have nearly significant higher abundance in native than commercial inocula (*C. clariodeum* $F_{1,59}$=2.3, p=0.13, C; *R. fulgida* $F_{1,59}$=2.0, p=0.16, E). *R. intraradices* had higher spore abundance in the commercial than in the native treatment (*R. intraradices* $F_{1,59}$=6.3, p=0.01, G). *Septoglomus constrictum* was identified as a resident fungal member and showed significantly lower spore abundance in commercial inoculum ($F_{1,59}$=13.67, p=0.0005, H). Error bars represent standard error. Control is uninoculated control treatment, Commercial is commercial fungal inoculum, and Native is native fungal inoculum.

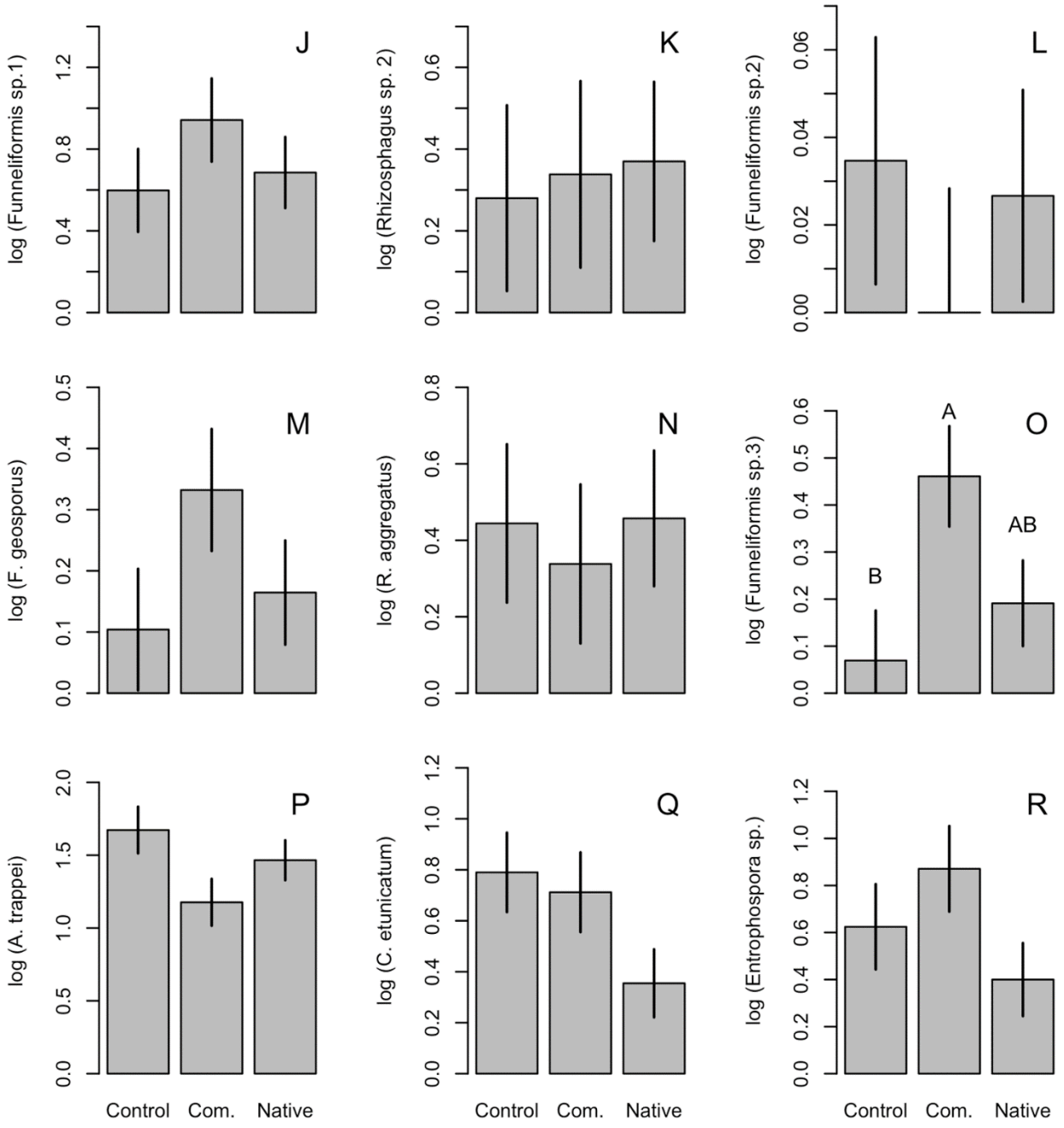

FIG. A2. Summary of individual AMF species mean (log) spore abundances (J-R) for spores counted across the three treatments. *C. etunicatum* had higher spore abundance in the commercial than in the native treatment ($F_{1,59}$=6.6, p=0.01, Q). Error bars represent standard error. Control is uninoculated control treatment, Commercial is commercial fungal inoculum, and Native is native fungal inoculum.

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