Čuda J., Hadincová V., Petřík P., Hummel J., Sejfová Z., Borovec J., Bureš L., Wild J. & Hradecký J. (2024) Environmental factors shape the relationship between seed bank and vegetation on periodically emerged alluvial gravel bars of the Elbe river. – Preslia 96: 223–246.

Supplementary Data S1. R code for univariate and multivariate analyses.

```
metaMDS(male.spe.vegdist,distance="bray",k=2,maxit=999,trymax=500,wascores=
TRUE)

male.rep<-gl(60,3)

envfit(male.spe.NMDS,male.env.sc[,c(5,11,29,46)],permutations=999,strata=ma
le.rep)

envfit(male.spe.NMDS,male.spe,permutations=999,strata=male.rep)

envfit(male.spe.NMDS,male.env.sc[,c(14:16,48:57,59,61,77)],permutations=999
,na.rm = TRUE,strata=male.rep)
```

The NMDS for vegetation species composition and fitting of environmental variables, species and traits using the *envfit* function. Analogous code with modified permutation scheme was used for seed bank community composition.

………...

```
sbmale.rep<-gl(119,2)

dbrda(sbmale.spe~type,data=sbmale.env,distance="bray",strata=sbmale.rep)

envfit(malesb.dbrda,sbmale.spe,permutations=999,na.rm=TRUE,strata=sbmale.re
p)
```

The dbRDA testing the difference between vegetation and seed bank species composition and fitting the species using the *envfit* function.

………...

```
glmer(meanw_seed~scale(trans)+scale(unfl.1)+I(scale(unfl.1)^2)+scale(sand)+
I(scale(sand)^2)+(1|locality/transect)+(1|year),family=Gamma,data=seedmass_
test)
```

The GLMM testing the effect of transversal position of the transect (transversal), the duration of the gravel bar emergence in the preceding vegetation season and its quadratic term (unfl.1), the sand proportion and its quadratic term (sand).

Random factors were locality, transect (nested in locality) and year.

………...

```
lmer(vegdist~scale(trans)+scale(unfl0)+scale(veg_rich)+scale(sb_rich)+(1|lo
cality/transect)+(1|year),data=sorensen2)
```

The LMM model testing the effect of transversal position of the transect (trans), the duration of the gravel bar emergence in the vegetation season (unfl0), vegetation (veg_rich) and seed bank species richness (sb_rich) were predictors.

Random factors were locality, transect (nested in locality) and year.