Wieczorek M., Kolmogorov A., Kruse S., Jacobsen I., Nitze I., Nikolaev A.N., Heinrich I., Pestryakova L.A., Herzschuh U. (2017). Disturbance-effects on treeline larch-stands in the lower Kolyma River area (NE Siberia). Silva Fennica vol. 51 no. 3 article id 1666. https://doi.org/10.14214/sf.1666

Supplementary file

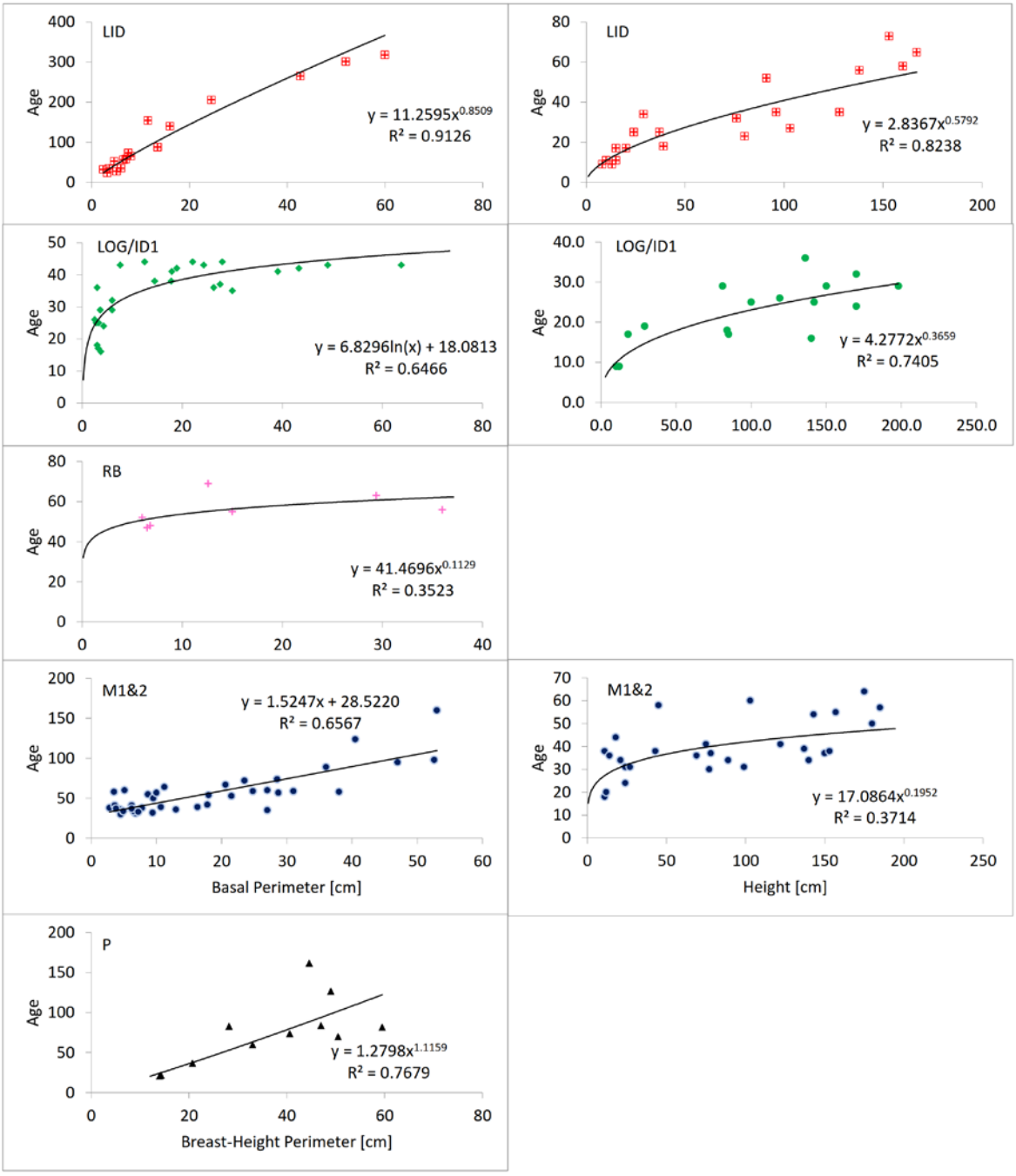

Figure S1. Site-specific regressions. As no perimeter values were recorded for individuals <40 cm tall, age-height relationships were calculated for seedlings (right column), and age–basal-perimeter

relationships were used for saplings and trees (left column). At the RB site, no saplings and seedlings were sampled, at the P site, only cores at breast height were analysed. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON**.**

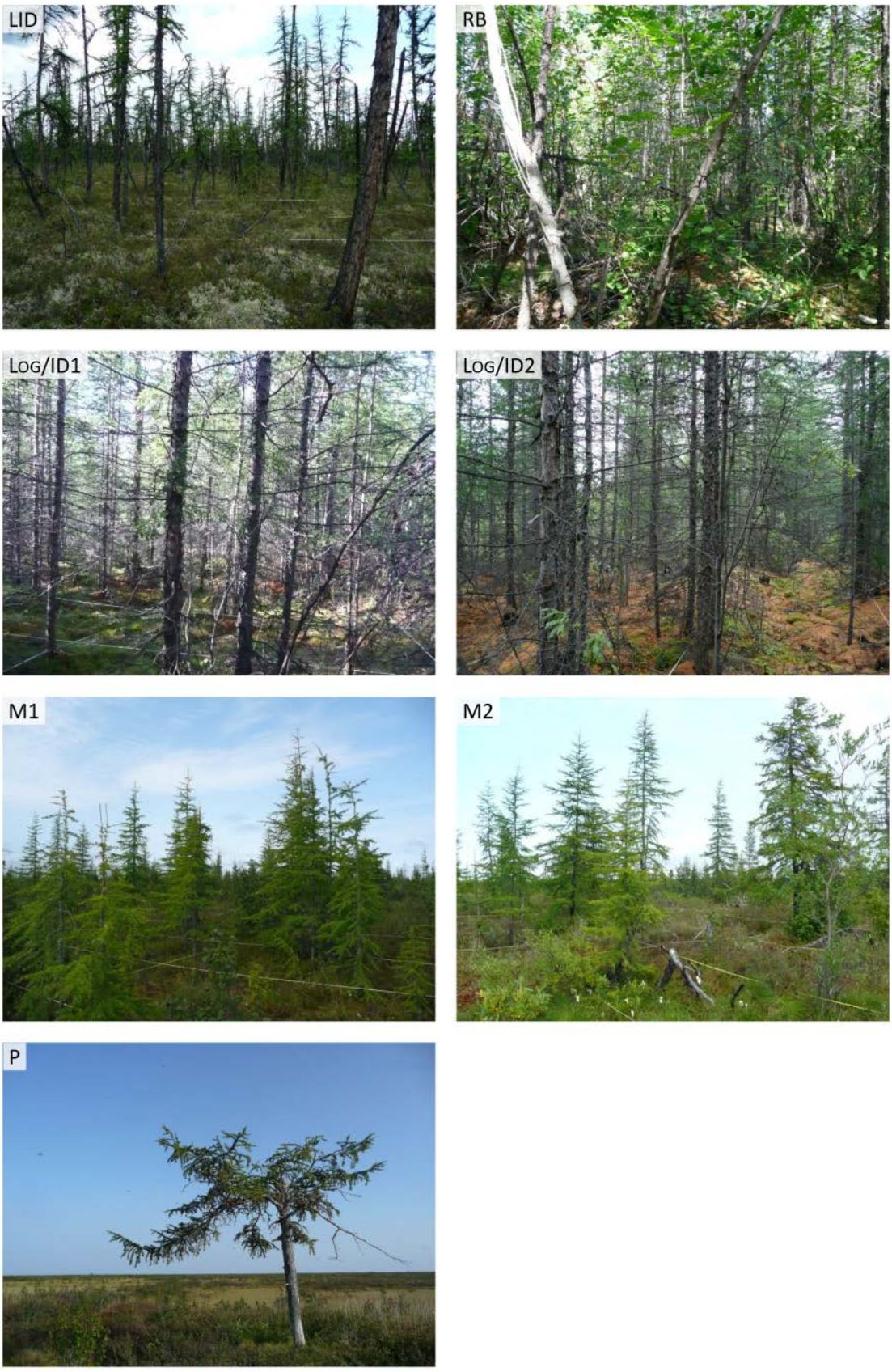

Figure S2. Pictures of study sites. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON.

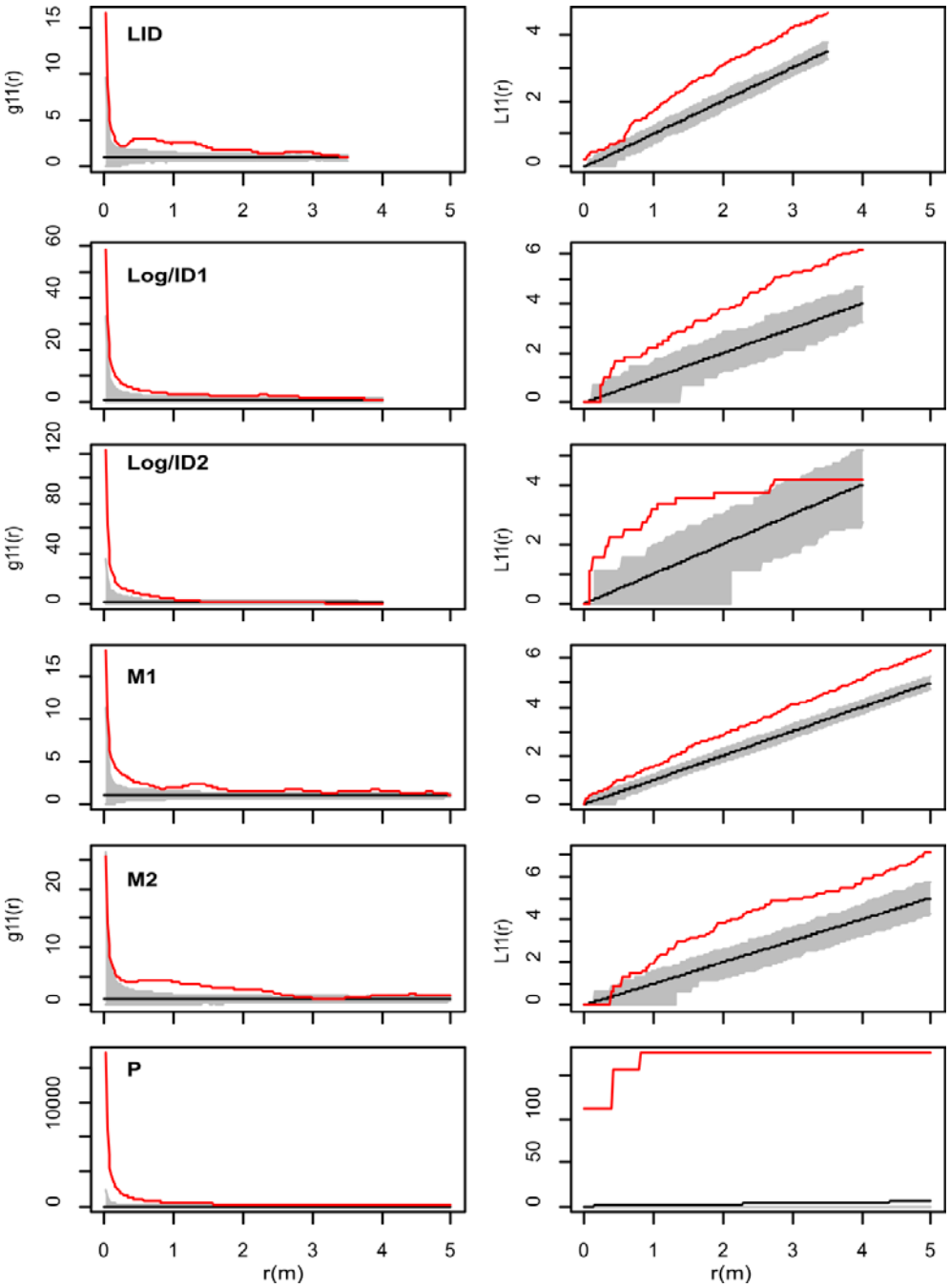

Figure S3. Univariate analyses of living larch saplings (40-200 cm tall) with pair-correlation function (*g11(r)*) and L-transformed Ripley's K-function (*L11(r)*). Black lines are the theoretical, red lines the observed distribution pattern. Grey areas depict the Monte Carlo simulation envelopes calculated from 199 simulations (*nsim*), using the fifth-highest and fifth-lowest simulated value. Values above the envelope indicate significant clustering, values below the envelope significant segregation at the given scale. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON.

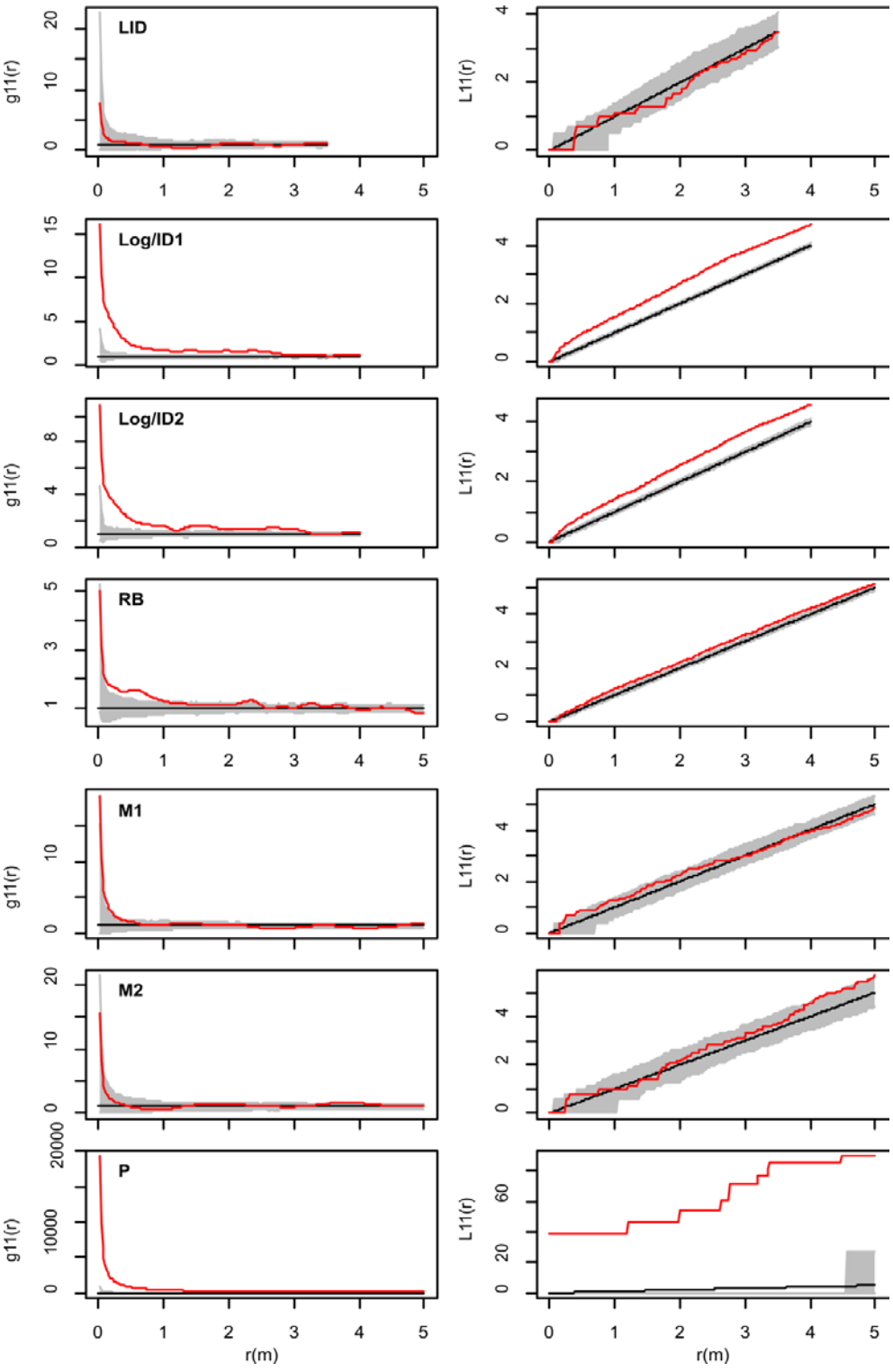

Figure S4. Univariate analyses of living larch trees (≥200 cm tall) with pair-correlation function (*g11(r)*) and L-transformed Ripley's K-function (*L11(r)*). Black lines are the theoretical, red lines the observed distribution pattern. Grey areas depict the Monte Carlo simulation envelopes calculated from 199 simulations (*nsim*), using the fifth-highest and fifth-lowest simulated value. Values above

the envelope indicate significant clustering, values below the envelope significant segregation at the given scale. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON.

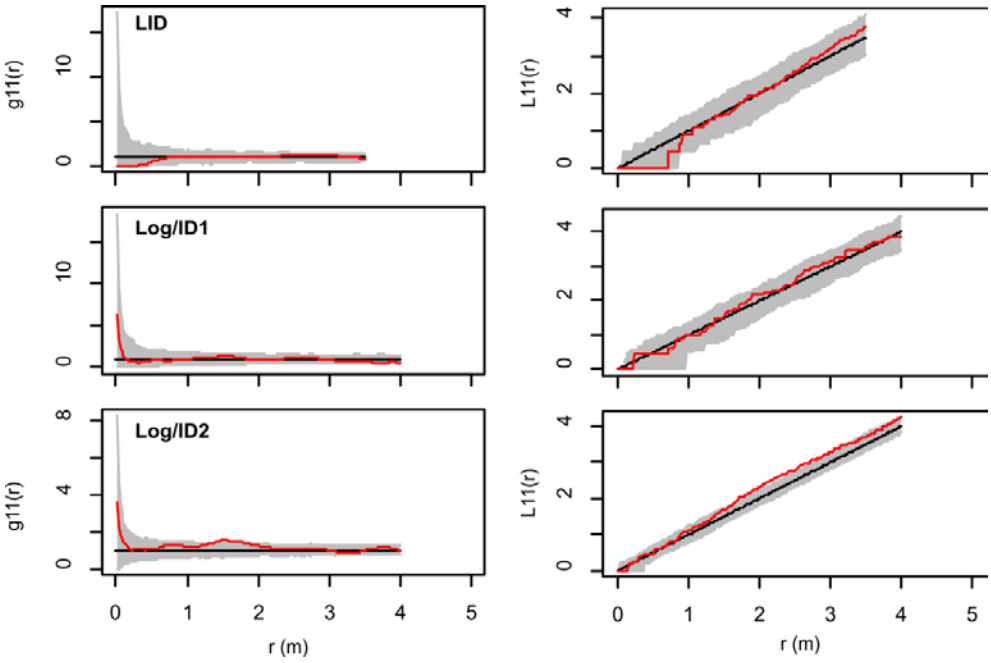

Figure S5. Univariate analyses of dead trees (LID) or stumps (Log/ID) with pair-correlation function (*g11(r)*) and L-transformed Ripley's K-function (*L11(r)*). Black lines are the theoretical, red lines the observed distribution pattern. Grey areas depict the Monte Carlo simulation envelopes calculated from 199 simulations (*nsim*), using the fifth-highest and fifth-lowest simulated value. Values above the envelope indicate significant clustering, values below the envelope significant segregation at the given scale. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON.

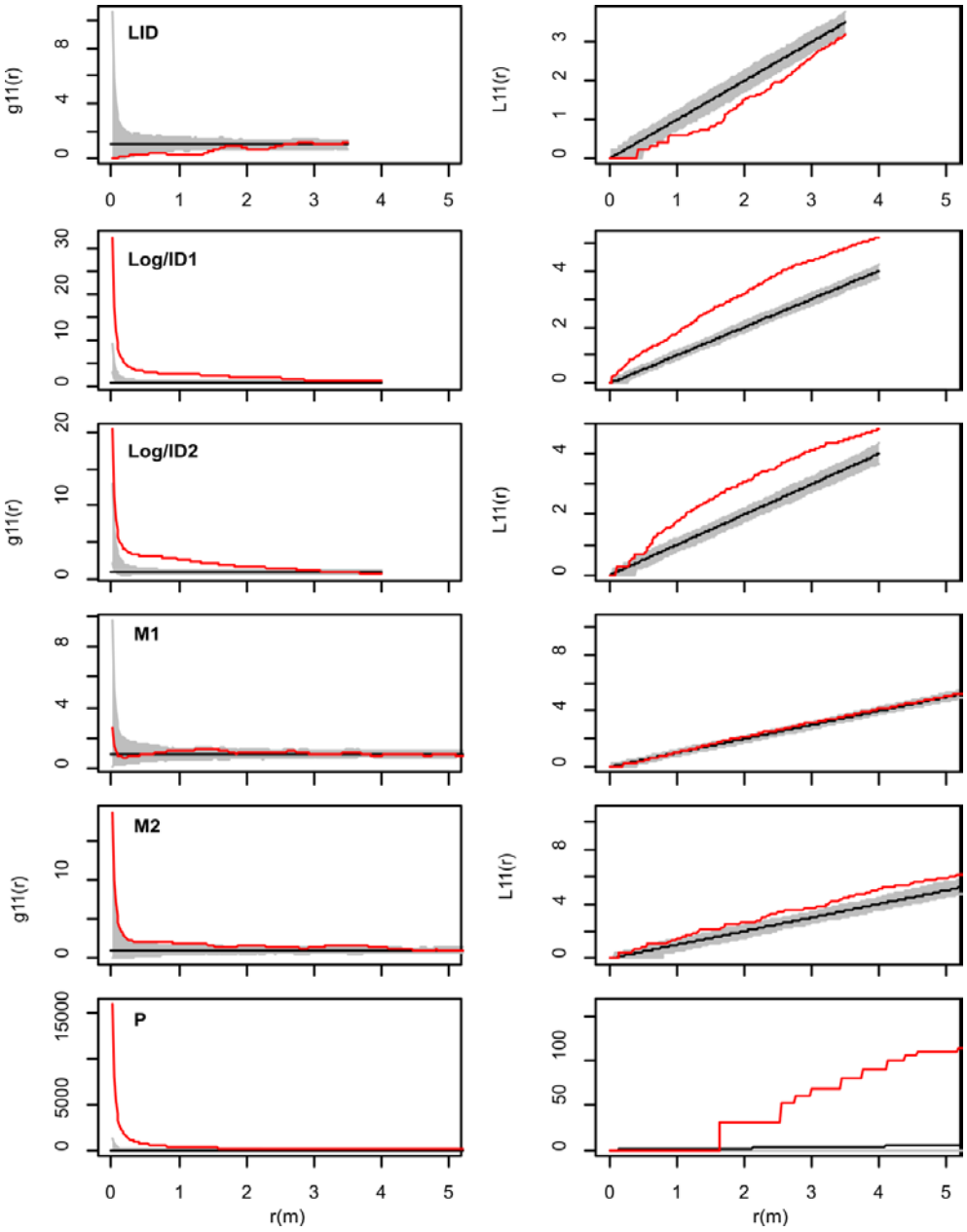

Figure S6. Bivariate analyses of trees and saplings with pair-correlation function (*g12(r)*) and L-transformed Ripley's K-function (*L12(r)*). Black lines are the theoretical, red lines the observed distribution pattern. Grey areas depict the Monte Carlo simulation envelopes calculated from 199 simulations (*nsim*), using the fifth-highest and fifth-lowest simulated value. Values above the envelope indicate significant attraction, values below the envelope significant indicate repulsion of the two size classes at the given scale. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON.

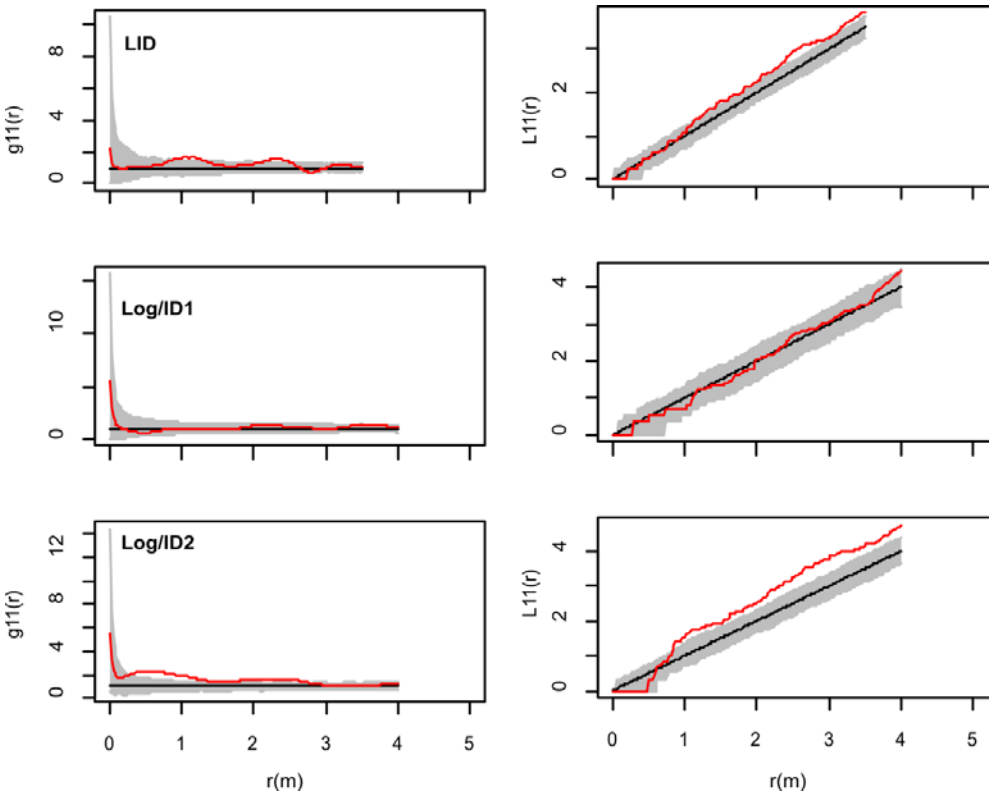

Figure S7. Bivariate analyses of dead trees (LID) or stumps (Log/ID) and saplings with pair-correlation function (*g12(r)*) and L-transformed Ripley's K-function (*L12(r)*). Black lines are the theoretical, red lines the observed distribution pattern. Grey areas depict the Monte Carlo simulation envelopes calculated from 199 simulations (*nsim*), using the fifth-highest and fifth-lowest simulated value. Values above the envelope indicate significant attraction, values below the envelope significant indicate repulsion of the two size classes at the given scale. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON.

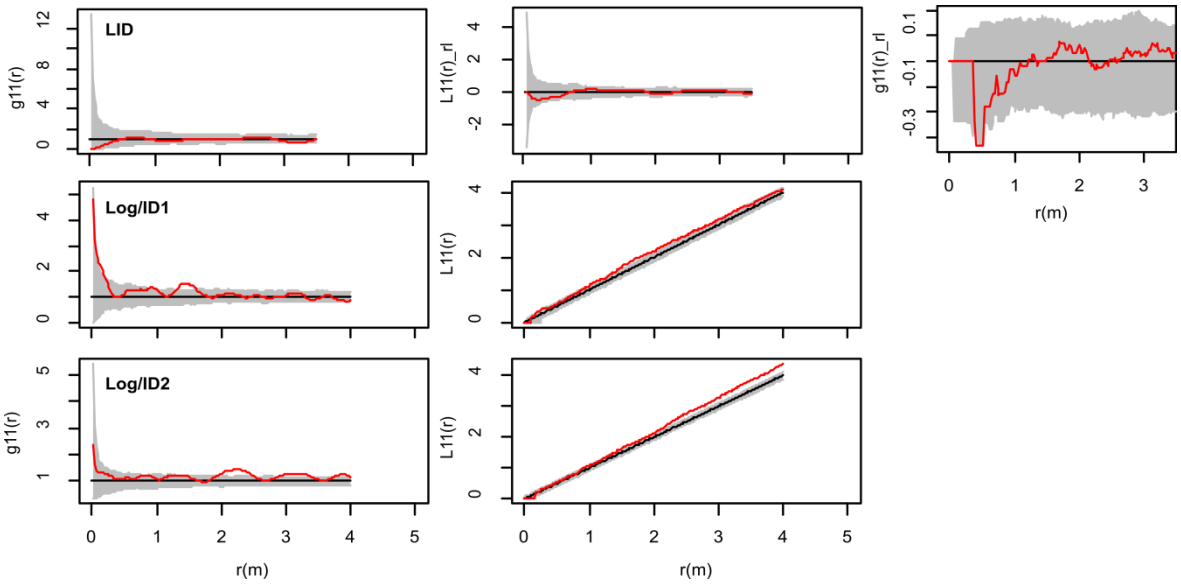

Figure S8. Bivariate analyses of dead trees (LID) or stumps (Log/ID) and trees with pair-correlation function (*g12(r)*) and L-transformed Ripley's K-function (*L12(r)*). At site LID, random labelling approach (rl) was used additionally. Black lines are the theoretical, red lines the observed distribution pattern. Grey areas depict the Monte Carlo simulation envelopes calculated from 199 simulations (*nsim*), using the fifth-highest and fifth-lowest simulated value. Values above the envelope indicate significant attraction, values below the envelope significant indicate repulsion of the two size classes at the given scale. Site codes: LID=**L**OW **I**NTENSITY **D**ISTURBANC**E**, RB=**R**IVER **B**ANK, LOG/ID=**LOG**GING/**I**NTENSE **D**ISTURBANC**E** 1&2, M=**M**EANDER 1&2, P=**P**OLYGON.