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David M. Forsyth, Deborah J. Wilson, Tomás A. Easdale, Georges Kunstler, Charles D. Canham, Wendy A. Ruscoe, Elaine F. Wright, Lora Murphy, Andrew M. Gormley, Aurora Gaxiola, and David A. Coomes. 2014. Century-scale effects of invasive deer and rodents on the dynamics of forests growing on soils of contrasting fertility. *Ecological Monographs* VOL:pp-pp.

APPENDIX M. Figures showing predicted 500-year trends in adult basal area, sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios.

The 15 panels of figures below show predicted 500-year changes in adult basal area (upper row), sapling density (middle row) and seedling density (lower row) for each of the 15 tree species (i.e., including tree ferns) in the alluvial terrace forest model for four rodent-deer herbivory scenarios. The four rodent-deer herbivory scenarios were: + deer + rodents (left panel), – deer + rodents (central left panel), + deer – rodents (central right panel), – deer – rodents (right panel). Each scenario was run for 500 years using a SORTIE/NZ parameter file (available for download; see Supplement) and 100 different starting conditions. Hence, each figure within a panel is a summary of data from 100 simulations at each of 500 annual time-steps, with the areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles.



FIG. M1 (continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Podocarpus hallii, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Prumnopitys ferruginea, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Metrosideros umbellata, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Nothofagus menziesii, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Nothofagus solandri var. cliffortioides, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Carpodetus serratus, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in scenarios for the alluvial terrace forest. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Pseudowintera colorata, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



Schefflera digitata, alluvial terrace forest

FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in scenarios for the alluvial terrace forest. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



FIG. M1 (continued; continued overleaf). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.



FIG. M1 (continued). Predicted 500-year trends in adult basal area (BA), sapling density and seedling density for each of the 15 species in the four alluvial terrace forest herbivory scenarios. The areas of decreasing shading represent the 40-60%, 25-75% and 2.5-97.5% quantiles from 100 simulations.

Dicksonia squarrosa, alluvial terrace forest