

Figure A 1: Example of increasing granularity for total Ag to Ag versus pasture, to pasture versus specific crops. For illustration in this example, only corn, soybeans, and pasture are shown rather than all CDL land-use categories.

Table A 1: CDL category definitions. See code supplement for listing of variables classified as 'ag'

| Category | Description            |
|----------|------------------------|
| Corn     | Corn                   |
| Corn     | Sweet corn             |
| Corn     | Pop or orn corn        |
| Corn     | Non irrigated corn     |
| Forest   | Forest                 |
| Forest   | Deciduous forest       |
| Forest   | Evergreen forest       |
| Forest   | Mixed forest           |
| Pasture  | Grass pasture          |
| Soybeans | Soybeans               |
| Soybeans | Non irrigated soybeans |
| Wetlands | Wetlands               |
| Wetlands | Woody wetlands         |
| Wetlands | Herbaceous wetlands    |

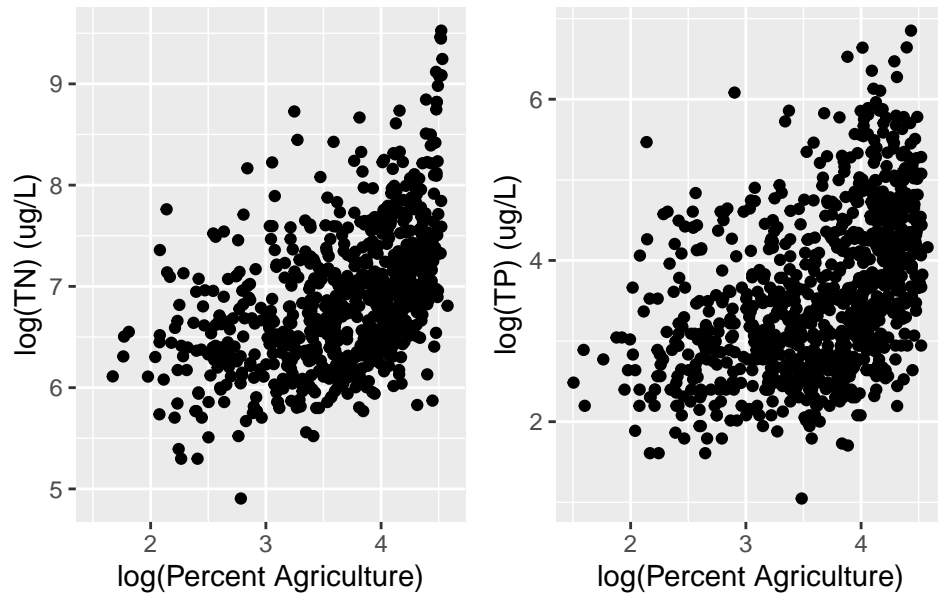


Figure A 2: Lake nutrient concentrations versus percent watershed agriculture.

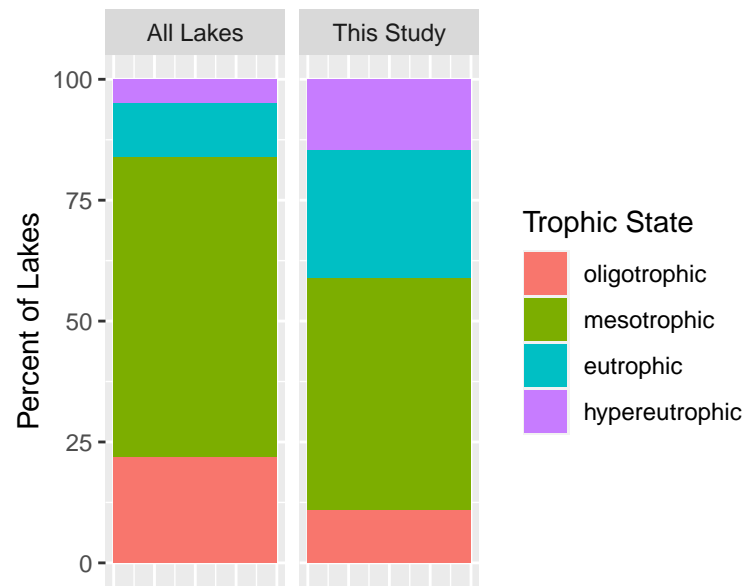


Figure A 3: Lake trophic state in our study lakes versus all lakes in the study extent.

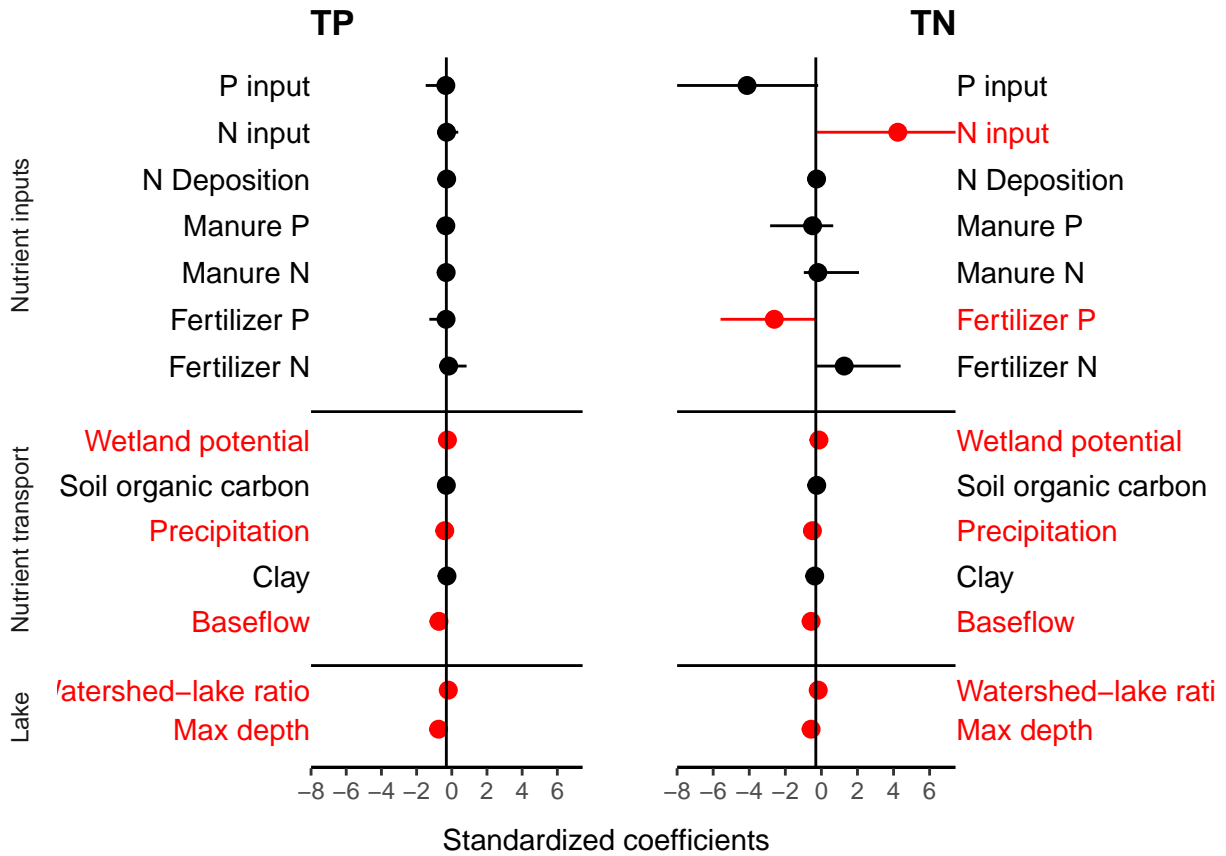


Figure A 4: Global (fixed effect) coefficient values and credible intervals for best-fit lake TP and TN models when land-use predictors are excluded. Values that do not overlap zero are shaded in red. Horizontal bars separate coefficients in distinct predictor categories. Coefficient estimates are reported relative to standardized predictor variables centered at zero with unit variance.

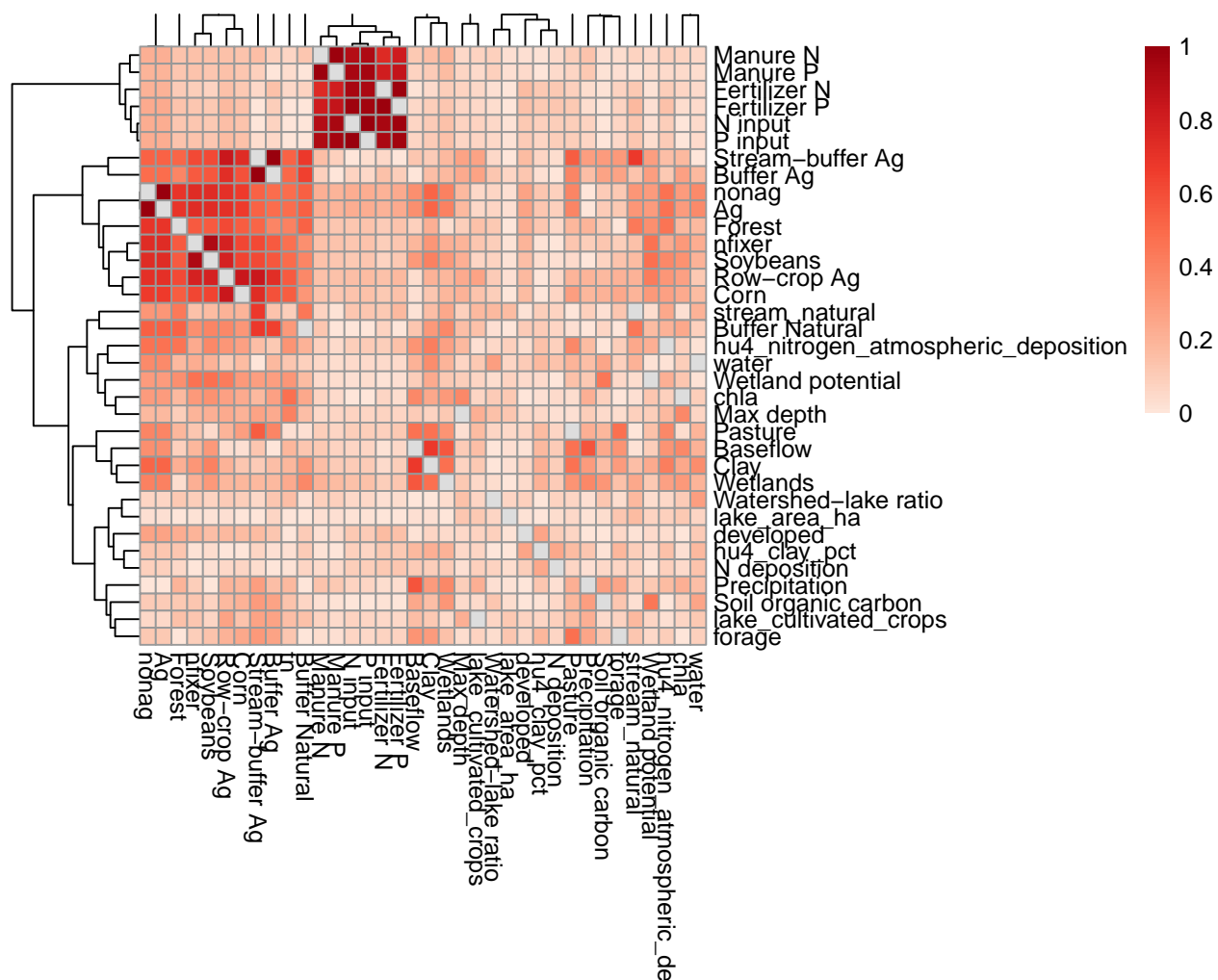


Figure A 5: Heatmap showing absolute value correlation coefficients among predictor variables.