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| Table S1. Spatial statistics indices used in this study. |
| **Metrics** | **Measure** | **Selected indices** | **Meaning** | **Equations** |
| Patch Density and Size Metrics | Landscape fragmentation and configuration | Number of patches, *NumP* (#) | Number of patches ($p\_{t}$) at landscape level or for each individual class (if analyzed by class). Each class is represented by SPL categories defined by ranges of 5 dB(A).  | $$NumP=\sum\_{t=1}^{n}p\_{t}$$ |
| Mean patch size, *MPS* (ha) | Average patch size ($a\_{ij}$) analyzed by class or landscape level ($n\_{i}$refers *NumP*). In this case *MPS* is analyzed at landscape scale. | $$MPS=\frac{\sum\_{j=1}^{n}a\_{ij}}{n\_{i}}$$ |
| Edge Metrics | Amount, length, and distribution of edges between specific patch types | Edge density, *ED* (m/ha) | Patch perimeter or edge length (E) referred to the landscape total area (A) or each class area (*CA*). *CA* is the sum of areas of all patches ($a\_{ij}$) belonging to a given SPL category of 5 dB(A) increments. | $$ED=\frac{\sum\_{i=1}^{n}E\_{i}}{A or CA}$$ |
| Shape Metrics | Geometric complexity | Area-weighted mean shape index, *AWMSI* (no units) | It is equal to 1 when all patches are circular (for vector files) or square (for raster files) and increases (without limit) when increasing patch shape irregularity ($p\_{ij}$is the perimeter of patch *ij*) | $$AWMSI=\sum\_{j=1}^{n}\left[\frac{p\_{ij}}{min p\_{ij}}\left(\frac{a\_{ij}}{\sum\_{j=1}^{n}a\_{ij}}\right)\right]$$ |
|  | Mean patch fractal dimension, *MPFD* (no units) | It approaches 1 for shapes with very simple perimeters (circles or squares) and approaches 2 for highly convoluted perimeters | $$MPFD=\frac{\sum\_{j=1}^{n}(\frac{2ln p\_{ij}}{ln a\_{ij}})}{n\_{i}}$$ |
| Source: McGarigal & Marks, 1995 |