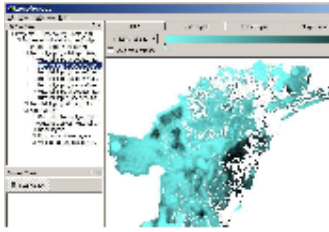


# Zonation

<b>Tool Name *</b>	Zonation
<b>Category *</b>	Spatial Analysis Mapping Spatial Planning:
<b>What step(s) in framework *</b>	1a. Temporal and Spatial Boundaries for SMA Assessment 2a. Ecosystem Components 2b. Pressures and Impacts
<b>Description *</b>	<p>Zonation is a framework for large-scale conservation planning. Zonation can be used for various purposes such as the identification of near-optimal reserve networks, identification of expansions for reserve networks, assessment of proposed reserve networks and priority ranking for conservation decision support.</p> <p>Features of Zonation that distinguish it from other conservation planning software include (i) direct workflow between GIS, statistical species distribution modelling and Zonation, (ii) an ability to work with data sets having millions of selection units (grid cells), (iii) ability to set connectivity constraints in a species-specific manner, (iv) potential modelling of species interactions, and (v) uncertainty analysis to identify robust reserve solutions. While the main operational principle and output of Zonation are different from those of target-based planning, Zonation can also be used to carry out traditional target-based analyses</p> <p>Zonation software has been geared towards using large grids as input data. Thus, it is particularly simple to input modeled species distributions (or land cover types) into Zonation. First do statistical habitat models for species, then predict species occurrence across the landscape grid, then feed the grids into Zonation. The Zonation software can be run with relatively large datasets on an ordinary desktop PC.</p> <p>What step in framework The main function of Zonation is analysis of biodiversity distribution and conservation value - economical considerations can only be included via simple land cost layers. Thus, output of Zonation should primarily be seen as one analysis that feeds into a broader land use planning framework where political decisions are made that balance between different land use needs, benefits and costs.</p> <p>Large-scale grids describing distributions of biodiversity features presence/absence -data probabilities of occurrence abundance/density -data Land cost Present or proposed conservation areas Point observation data (New in v. 2.0) Planning unit layers (New in v. 2.0)</p> <p>Typically one would enter one grid per species (feature). Each cell would have either an observation of population size at that location, or, more commonly, a probability of occurrence or abundance predicted using a statistical habitat model.</p>
<b>Inputs</b>	<p>Typical input data of Zonation consists of observed or predicted distributions of biodiversity features (species, communities).</p> <p>Compulsary:</p> <ol style="list-style-type: none"> <li>(1) distribution grids of species or other biodiversity features, which describe the distribution and local density of each feature across the landscape</li> <li>(2) biodiversity feature list file that indicates which biodiversity feature grids are to be used in the analysis. Certain settings, such as weighting, are adjusted in the biodiversity feature list file.</li> <li>(3) run settings file that defines the settings and Zonation features to be used in your analysis.</li> </ol> <p>There are several optional files (see Zonation manual on <a href="http://cbig.it.helsinki.fi/software/zonation/">http://cbig.it.helsinki.fi/software/zonation/</a>)</p>
<b>Data Quality Required</b>	
<b>Modification Required</b>	Not available
<b>Expertise Required</b>	Development of aims, ecological model and data is best done among a planning group consisting of knowledgeable experts representing different stakeholders. It is rare that one party alone has all knowledge and data relevant for analysis - if not, multiple parties need to participate in the planning.
<b>Outputs</b>	<p>Output of Zonation can be visualized in by two intuitively appealing graphs - the rank priority map and and species-specific performance curves.</p> <p>Zonation produces basic raster files from each run, which can be imported to GIS software for further analysis and visualization.</p>
<b>Spatial and Temporal Scales</b>	All
<b>Licence Cost Issues</b>	No:
<b>Download</b>	<a href="http://cbig.it.helsinki.fi/software/zonation/">http://cbig.it.helsinki.fi/software/zonation/</a>
<b>Literature: References &amp; Manuals *</b>	<a href="http://cbig.it.helsinki.fi/software/zonation/">http://cbig.it.helsinki.fi/software/zonation/</a>
<b>EVALUATION</b>	

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15-08-2013 by Myra van der Meulen

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