RAMAS MULTISPECIES

Model Uses RAMAS Multispecies links GIS to an ecological model allowing the user to incorporate landscape data in population viability analyses, incorporate changes in habitat into a meta-population model, combine geographic and demographic data for risk assessments, and compute the Multispecies Conservation Values (MCV) across a study site.

Major Categories Population Modeling; Decision Support

Subject Knowledge Level
Intermediate

Minor Categories Ecological Risk Assessment; Population Viability Analysis; Conservation

Technical Difficulty Level
Intermediate

Model Type Data Analysis Package

Geographic in Nature?
Yes

Abstract
RAMAS Multispecies Assessment combines what you know about the habitat and the risks for each species of a site into a single map of conservation values for landscape conservation, planning and management.

You may use as little data for each species as a location map and its threat status (e.g., endangered, threatened) or, if you have more data, build detailed habitat and meta-population models.

Future Developments
Unknown

Model Limitations
Unknown

Model Features

- Apply a suitability function to a series of map layers
- Estimate the habitat suitability
- Delineate populations
- Import existing GIS maps
- Import RAMAS GIS Spatial Data files
- Build spatially explicit metapopulation models, which may have stage or age structure, density dependence, stochasticity, dispersal catastrophes, population management
- Import existing RAMAS Metapop files
- Estimate the risk of extinction for a species
- Estimate the contribution of each individual population to overall metapopulation risk of extinction
- Utilize an externally generated numerical risk value
- Estimate a multispecies conservation value (MCV)

Required Data Types
A variety of data can be used, ranging from simple species location map to habitat or multispecies models.

Model Outputs
RAMAS Multispecies produces a variety of outputs during the 3-step process that summarizes the habitat suitability, meta-population dynamics, and MCV. These include: Habitat suitability map for each species (exportable), Risk of meta-population decline, Abundance of the meta-population and the expected variation, Map of the MCV's across the study site (exportable).

Hardware Requirements
None specified.

Software Requirements
Windows Emulation Software for Macintosh Users.

Supported Platforms			
DOS	☐	**UNIX**	☐
Windows	☒	**Macintosh**	☒

Cost, Licensing and Availability
$2,995 – Available from link below

Source
RAMAS Environmental Software

Source URL
http://www.ramas.com/multispecies.htm