Natura 2000 is an ecological network of protected areas, set up to ensure the survival of Europe's most valuable species and habitats. Unfortunately given economic considerations, i.e. the cost of purchasing land, preventing conversion and development and managing selected areas, it is necessary to prioritize the protection of the selected lands within Sicily. When prioratizing sites in a landscape to be conserved, there are a number of important factors to consider such as, site attributes such as size and shape, populations of threatened species, and overall landscape quality and systemic attributes such as contiguity and proximity of selected sites. This research creates optimal site selection and land allocation integer programming models to prioritize the protection of land selected under EU's Natura 2000 program for Italy. In the presentation I will introduce the research questions, present the integer programming models, introduce the data, and discuss the results using maps and stylized graphs.