Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Land-cover Mapping and Research in Pinnacles National Monument	
Type of Project: Research	
Funding Agency: National Park Service, Pinnacles National Monument	
Effective Dates: September 1, 2002 – June 1, 2004	
Funding Amount: $ 47,000	
Investigators and Agency Representative: UNIVERSITY CONTACT: Dr. Roland Redmond, Director Wildlife Spatial Analysis Lab, 406-243-4906 NPS CONTACT: David Schirokauer, GIS Biologist, Point Reyes National Seashore, 415-464-5199	
Project Abstract: The Wildlife Spatial Analysis Lab at The University of Montana (UM) will produce a digital database of the land cover and existing vegetation for the Pinnacles National Monument (and local environs) from high-resolution IKONOS imagery. This digital database will be of sufficient resolution and quality for scientists and planners at the Pinnacles National Monument to use for management and long-term monitoring needs. The IKONOS satellite images will be mosaiced together, ortho-rectified, and reprojected, if necessary. An unsupervised classification will then be performed with ERDAS Imagine software (ISODATA routine), followed by a segmentation of the full image using eCognition software. A detailed and spatially explicit land cover database (Arc/Info Grid) for the Pinnacles National Monument and local environs that will enable scientists and planners to make informed management decisions. The geographic extent of the project cannot be any larger than the area covered by the IKONOS imagery provided by the National Park Service; at the same time, it will definitely include the full extent of the Pinnacles National Monument.	
Outcomes with completion dates: Provide digital databases on CD-ROM, along with FGDC compliant metadata and a Final Report describing the methods used to classify the imagery and to assess the accuracy of the classifications.	
Keywords: Pinnacles National Monument, vegetation mapping, IKONOS imagery	
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