

Preliminary Findings

For the relict and unusual vegetation research on the Grand Canyon-Parashant National Monument, work completed thus far has narrowed the scope of the search and helped to identify GIS techniques which could be used to find relict vegetation.

Examination of maps and GIS data layers (elevation, geology, and several versions of broad-scale vegetation maps) allowed us to focus on one small area of the Monument to serve as the pilot area to begin more intensive research. This area is in the southwestern portion of the landbase and appears to have similar features to other portions of the Park Service portions of the Monument landbase. Copies of DRGs, geology, and elevation GIS layers were obtained for further investigation in the Shultz Floristics lab at Utah State University.

Initial interviews of Monument personnel suggest that extensive grazing has occurred on the landbase, both by sheep and cattle. In speaking with these personnel, it appears that the best chance for locating relict vegetation will be to find areas which are physically less accessible to grazing animals. Within the study area, two potentially isolated “fingers” of land were identified in the Tincup Butte area and were visited in early summer. We found that, as warned by Monument personnel, accessibility was a major hindrance in investigating these areas and we were not able to reach them within a single field day. Future field work will be organized to accommodate multiple day hikes. One other field day was spent investigating a potentially isolated butte, the Nevershine area. While it appeared to be much less accessible than other portions of the landbase, a break in the rock cliff surrounding most of the range appeared to be often used by grazing animals. These initial field days have allowed us to narrow our focus in this research and have aided our planning for a week in the field in September to investigate sites selected through further examination of the GIS layers and other maps provided.

This month, work will focus on more careful examination of the elevation layer in particular, in an attempt to locate smaller landforms which might support relict vegetation. One area which we believe to be a candidate is Parashant Canyon, though other smaller plateaus will also be identified in the GIS. We plan to identify more areas to investigate fully on the next trip into the field.