



FORCES Project Opportunities

Academic Research

The diversity of NYS Parks provides exciting opportunities for academic research as well as the unique ability to inform park natural resource management and environmental education. Many obvious research opportunities are in the sciences, though potential projects could be seen in less-often considered fields, such as education or history.

Projects in this category would be unique to the research interests and skills of partnering students, faculty, and departments, but a few example research topics include: evaluation and monitoring of deer population density or control mechanisms; the effects of invasive species on park resources, especially species of concern; the viability and management of our old growth forests; and documentation of our endemic and endangered species. These projects are suitable for capstone or thesis level-work, as well as long-term partnerships with faculty or departments. Expertise in the project area is required and necessary supplies will be discussed on a project to project basis.

Art & Graphic Design

Individuals interested in both art and the parks can be extremely helpful in the design of promotional or interpretive materials. Visual interpretations help visitors take in information and updating these visuals keeps them entertaining and eye catching.

Art & graphic design projects can include: designing new interpretive signage; updating images or layout on existing signs; designing or updating educational brochures; updating park maps; and creating visuals of historical features to be used during educational programs or tours. These projects can be short-term and one-time, or can be extended into semester/ summer long initiatives.

Bird Conservation

NYS Parks has a statewide partnership with Audubon New York called “Audubon in the Parks”. Through this partnership, State Parks has developed multiple Audubon designated Bird Conservation Areas, or BCAs. Additionally, many local Audubon chapters provide assistance with bird monitoring and habitat enhancement, and often use our parks for their chapter activities. Bird conservation projects provide opportunities for academic research and initiatives that may span the length of a semester or longer, though there are also one-time projects that fall under this category.

Bird conservation projects will most likely occur in support of our NYS Park BCAs and may include: biodiversity surveys and species inventories; research on habitat enhancement or restoration; development of management plans to protect birds of special concern; planting of areas to encourage appropriate bird habitat; and production of educational materials or bird conservation programs. These projects are crucial to maintaining the quality of our Bird Conservation Areas within the parks, as well as the experience of park visitors. Participants do not need an extensive background in

ornithology, unless they are interested in conducting bird surveys. However, participants should be familiar with the concepts and significance of the specific project they choose. Training and tools will be provided or arranged by FORCES staff.

Cultural Interpretation

Many of the areas owned by NY State Parks are historic sites, with unique cultural histories. Cultural interpretation projects strive to spread knowledge and understanding about these cultures. This helps preserve a remembrance of these cultures and sites and can instill an appreciation for them among the visitors of the area.

Cultural Interpretation projects include: assisting in the curation or planning of museums; giving tours of historic buildings or areas; participating in historical events; and designing or implementing recreations of historic features. These projects are generally suitable for semester-long or longer time commitments for individuals or small groups.

Data Management

Data management is an essential component of our FORCES program. The documentation of the program structure and growth, along with the management and analysis of specific project data, allows us to more effectively analyze and implement our program and natural resource projects. Data management will be a likely component of many projects, but it can also be the primary focus of a project.

These projects are best-suited for an individual looking for regular volunteer activity, and can often be done independently after some instruction. Data management projects can include: in-field collection of invasive species data using iMapInvasives forms; entry of invasive species data into the iMapInvasives database; reorganization of hard copy project folders; scanning and copying various forms; collecting and inputting program updates into our FORCES database; GIS use to collect and map invasive species, trails, and other park information; and recommendation and implementation of new management programs and methods. Many data management projects require little previous training other than familiarity with standard office equipment (printers, scanners, and typical PC programs like Microsoft Office). However, individuals with advanced computer skills, especially GIS experience, are greatly valued for more complex projects. All other training, including iMapInvasives, will be provided or arranged by FORCES staff.

Environmental Education

Environmental education projects are extremely easy to tailor to fit the needs and interests of individual stewards. Educating school groups or the public about environmental topics within the parks broadens understanding and improves the park patron experience. Passionate stewards teaching others about the topics they care about will help increase awareness and understanding, and can lead to visitors caring more about the parks and environmental topics than they might have otherwise. Sharing an appreciation for the outdoors can also help visitors feel more comfortable and engaged in unfamiliar areas.

Environmental education projects can be adopted for a summer season, a semester-long initiative, or as occasional outreach programs. Projects can include: leading gorge tours, explaining gorge formation, local history, or other topics of interest; developing and leading hikes that focus on specific topics, such as wildflowers, plant id, or birds; preparing or enhancing educational materials on an environmental topic of your choice; giving presentations or leading programs about an environmental topic of your choice; developing text for interpretive signage; and developing educational pamphlets or handouts. Participants who are interested in outreach projects should be enthusiastic about teaching and have excellent communication skills. Prior knowledge of geology, plant identification, ornithology, etc. is helpful but not required.

Facility and Grounds Maintenance

Facility and grounds maintenance is required year-round, and these projects are ideal for volunteer groups or skillful individuals, and most are short-term. Maintenance keeps the parks looking cared-for and professional, improving the experience of the visitors and increasing their appreciation for the parks. Assisting regular park staff with maintenance projects can speed up large projects, or can lead to the completion of projects that there might otherwise not have been time for.

These projects may include: repairing park structures such as picnic tables; cleaning up campsites at the beginning and end of each season; scrubbing fishing piers when slippery; maintaining landscaping and plants around park buildings; installing drain pipes; and resetting stairs in cabin areas. Many Facility and Grounds Maintenance projects require no previous knowledge or experience, but some may require basic experience with tools and woodworking or construction. All tools and appropriate training will be provided or arranged by FORCES staff.

Fish & Wildlife Management

Fish & wildlife management projects provide opportunities for academic research and initiatives that may span the length of a semester or longer, though there are also one-time projects that fall under this category.

Projects may include: biodiversity surveys and species inventories; research on habitat enhancement or restoration; restoration of habitat for species of special concern; wetland habitat assessment; research on wetland creation; development of management plans to protect species of special concern; water quality monitoring; deer density studies and deer exclosure monitoring; development or enhancement of deer hunting within Parks; management of overabundant Canada Geese; and planting of areas to encourage pollinators. These projects are crucial to maintaining the quality of the ecosystems within the parks, as well as the experience of park visitors. Participants do not need to have extensive background in fish & wildlife management, but should be familiar with the concepts and significance of the specific project they choose. Training and tools will be provided or arranged by FORCES staff.

FORCES Program Assistance

Just as our parks have volunteer needs, the FORCES program itself has many areas where volunteers and interns could offer their expertise and time. These projects are usually best suited to an individual or small group committed to working together, and would require a summer or semester.

Projects in this category can include: planning new initiatives for the program; assisting FORCES staff to plan events for clubs or volunteers; entering data into the FORCES database; working on the newsletter or website updates; grant-writing or fundraising for FORCES program expansion; and coordinating with park managers to update project lists and internship opportunities. Participants should be motivated and comfortable working independently.

Health & Safety

Within the NYS Parks Agency, the safety and well-being of our staff and visitors are of utmost importance. Health and safety projects may include: helping with review and assessment of protocols, procedures and written plans (i.e., Hearing Conservation, Hazard Communication, Respiratory Protection, etc.); assisting with administering and/or scheduling safety trainings; working with facility managers/supervisors to organize/implement a safety syllabus and tailgate training sessions; assisting safety manager and facility managers/supervisors with job safety analysis; assisting with the review of facility Emergency Action Plans; helping to identify potential health and safety concerns using OSHA standards; assisting with health and safety and water safety documentation and record keeping; and assisting with fire extinguisher inspections throughout the region.

Individuals should have an interest and basic knowledge in the health and safety field; general knowledge of standards and compliance components with OSHA, EPA, Industrial Hygiene, engineering controls, general health and safety preferred; good public relation skills; written and verbal communications skills; and computer skills for research and data entry.

Historic Preservation

The vast collection of historical material relating to the parks provides many opportunities for involvement. These resources deepen our understanding of the past uses of this land and inform us about the presence and relevance of remaining archaeological sites. Many of these documents, slides, and pictures, however, are difficult to locate or have never been coherently archived, and some resources are fragile and in need of preservation.

Projects relating to historical preservation include: organizing the documents, photos, slides, and film in the archives; developing a comprehensive plan for preserving materials properly; assessing the condition of materials and prioritizing preservation, creating literature to aid in the organization and preservation of each type of material; creating a digital filing system; writing descriptions of preserved records; researching historical events; compiling historical photos for the creation of displays; and developing and presenting educational programs about aspects of the history of the parks. These projects can be low or high time commitments during a semester, or can be combined as a summer internship. Participants should have a strong interest in history and experience with archival methods.

Invasive Species Management

All NYS Parks, in any region, are good candidates for invasive species projects. Invasive species are non-native plants or animals that threaten the survival of other species. If not managed, invasive species can completely dominate the areas where they have been introduced, threaten biodiversity, and have far-reaching effects on the ecosystem. When invasive species create a monoculture, or

become the only type of plant in an area, the park visitor experience suffers. Patrons will no longer have the opportunity to see a variety of plant life, or birds and animals, since monocultures support fewer species of birds and animals.

These projects can be one-time events for classes, clubs, or groups, a semester long initiative, or a regular volunteer activity. Projects in this category can include the following: mapping the location of invasive species with GPS devices; surveying areas to create inventories of invasive species; establishing invasive species prevention zones; leading group removals for kids, citizens, or FORCES clubs; documenting and implementing long term invasive species removal; preparing educational materials on a particular species or type of invasive; and giving educational presentations or programs on invasive species. Participants do not need to have prior knowledge of invasive species or familiarity with State Parks, though familiarity with plant identification is helpful. All tools and appropriate training will be provided or arranged by FORCES staff.

Natural Resource Management

Managing, preserving, and restoring the natural resources of the Parks provides many opportunities for research and semester or longer-term projects. These projects deal with important Park issues and aim to keep the important natural communities found within the Parks as healthy and ecologically whole as possible.

Natural resource management projects may include: monitoring water quality; restoring natural communities (grassland, wetland, floodplain forest restoration); developing prescribed burn plans and recommendations; identifying ecologically significant elements or areas; suggesting or creating invasive species prevention zones around rare and significant elements; assessing wetlands and creating wetland habitat protection plans; restoring and maintaining buffers around sensitive ecological areas; planting native plants; researching dam removal and developing removal plans and area restoration when appropriate; and collecting or storing seed from threatened plants. Previous experience is not required, but some prior knowledge of natural resource issues and ecological knowledge may be necessary.

Planning and Development

Planning and development projects focus on assisting the park engineers and architects. These projects improve the safety of the parks for patrons and employees. Most of these projects would require a summer or semester-long commitment.

Projects in this category may include: assisting with the annual fire code and maintenance inspection of park buildings and facilities; noting violations of State Fire Codes and maintenance issues; creating written reports for each inspected building; facility mapping; verifying field records; scanning and archiving records; drawing plans; and providing design assistance. The ability to work independently and read maps is required. Projects assisting with drawing and design require previous experience in architecture or engineering.

Recreational Activities

One of the primary missions of NYS parks is to provide safe and enjoyable recreational opportunities for NYS residents and visitors. From camping and horseback riding to picnicking and golfing, each park offers a unique set of opportunities and engages a variety of patrons from near and far.

Projects in this category can include: creating and implementing original recreational programs such as snow-shoe hikes, ice-fishing tutorials, or fitness initiatives; assisting regional and local park staff with existing recreational programs or initiatives; developing brochures and other educational materials to highlight recreational opportunities; developing or implementing surveys to gauge the recreational needs and wants of our patrons; and using other marketing or social media tools to publicize recreation activities. These types of projects are best suited for internships or individuals looking for a more than one-time commitment. Participants should be familiar with the specific recreational activities they choose for their projects, but all other training or supplies will be provided.

Social Media & Marketing

Social media & marketing projects are consistently needed by both the FORCES program and NYS Parks. These projects can require fairly low time commitments, though some of them are ideally longer-term initiatives.

These projects can include: designing and creating a FORCES website; updating pictures, text, and upcoming events on the FORCES website; creating and maintaining a FORCES Instagram or Facebook account; designing or updating promotional brochures; designing or updating promotional handouts or posters for specific events; and gathering tourism-related information necessary to appropriately distribute marketing materials. Participants should be familiar with the technology needed to create or update the items they choose (such as Adobe Pagemaker, Photoshop, Illustrator, Publisher, or InDesign), though project-specific training can be provided as necessary. Participants will be provided with all necessary background information and images for their project.

Sustainability

Sustainability projects are ideal for responsible students interested in research opportunities and sustainability planning. These projects are centered on the desire of the NYS Office of Parks, Recreation and Historic Preservation to implement more sustainable practices at regional facilities, and are part of the Statewide Sustainability Initiative. The goal of the initiative is to reduce the greenhouse gas emissions from NYS OPRHP by 30% between 2009 and 2030, and by 70% by 2050. Areas of focus include: energy use in park facilities; transportation; waste created by patrons or staff; installation of green buildings and equipment; and landscape management.

Projects in this category include: assessing current status of sustainability across facilities; providing recommendations to improve sustainability of practices and facilities; researching current methods or protocols used in other facilities and determining their suitability for OPRHP; determining viability of renewable energy technologies for OPRHP facilities or sites; compiling information and providing recommendations about energy or water saving devices, as well as sustainable cleaning practices or office equipment; creating composting demonstration sites; and creating and/or presenting educational materials about sustainability in the parks and patron involvement. Participants should

have some prior knowledge of sustainability issues and practices, and have had experience evaluating sustainability of facilities. These types of projects are suitable for internships and semester or summer long initiatives, for either individual students or student groups.

Trail Maintenance

Consistent heavy use of the park trails necessitates regular maintenance. Well-maintained trails are essential for the high quality of visitor experience that Parks strives for, and keeping trails clear of litter encourages visitors to be conscientious about their own trash disposal. Fixing damaged sections of trails not only ensures regular access to park patrons, but also emergency access for personnel needing to perform a rescue or evacuation.

Trail maintenance projects include: trash pickup; trimming overhanging vegetation; installation of water bars or other flooding control devices; and trail repair. These projects can be a low time commitment, and can be combined with recreational hikes or educational tours. Trail repair projects vary in required time, as some repairs will be simple and easily accomplished by a small group, while larger trail restoration projects may require large groups or longer amounts of time. Participants should be willing to spend time outdoors and engage in slightly strenuous activity, but do not need any prior knowledge or experience in trail maintenance. All tools and appropriate training will be provided or arranged by FORCES staff.