



NATIONAL CONSERVATION LANDS

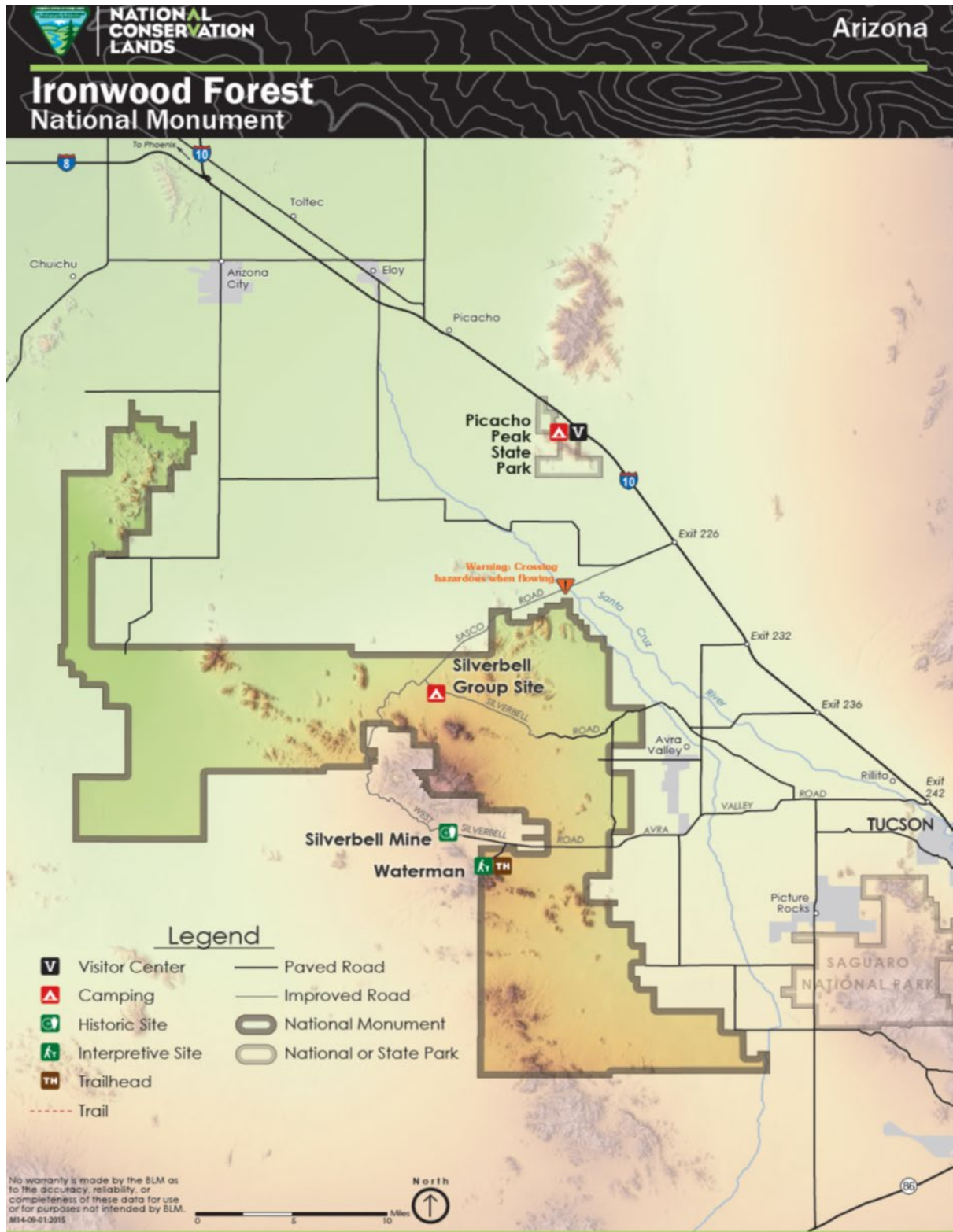
Arizona
2022: Annual Manager's Report

Ironwood Forest

National Monument



Map



Accomplishments

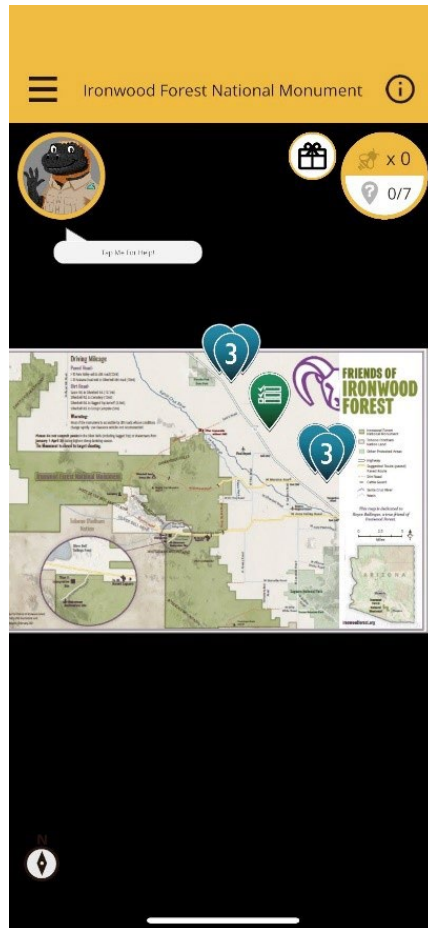
Through two financial assistance agreements with the Arizona Conservation Corps (AZCC), a five-person crew and one lead intern assisted with trash pick-up, fence repair, and errant trail removal. They repaired approximately 5 miles of fence, placed 30 informational signs and/or kiosks, removed 3,450 pounds of trash at over 370 unique sites, treated over 6 acres of buffelgrass, and mitigated 5 miles of unauthorized trail.



The Monument provided interns opportunities to engage in the BLM’s mission by working directly with resource specialists. These efforts assisted in identifying potential future career paths by learning of the many opportunities available in the BLM and the federal government.

The Bureau of Land Management (BLM) and Friends of the Ironwood Forest (FIF) continued collaboration on the development and maintenance of content for the Agents of Discovery (AoD) application. The AoD is an educational mobile game application that lets BLM sites create interactive, location-based challenges to engage youth and families with public lands.

The AoD app utilizes technology to enhance educational programming, visitor engagement, and outdoor recreation experiences for the next generation of public land users. Nine challenges, including cultural, wildlife, plant species, recreation, and geography elements, were created for the Ironwood Forest National Monument (Monument). The mission and challenges were finalized, and the application is currently available in both the Apple App Store and Google Play Store.



In 2022, BLM administered 11 Special Recreation Permits (SRPs) and implemented the Assessment, Inventory and Monitoring (AIM) protocol, a new federally mandated data collection strategy. The AIM protocol was conducted at 10 sites, covering nine allotments within the Monument.

Challenges

The primary invasive species of concern on the Monument is buffelgrass. Buffelgrass crowds out native vegetation and can create a continuous fuel source, causing more frequent and severe wildfires than normal within the Sonoran Desert ecosystem. In 2022, herbicide treatments occurred August through September. Monument contractors spot sprayed over 300 acres of buffelgrass, and volunteers sprayed over 50 acres. In the winter, several infestations of buffelgrass were manually removed.



Volunteers from the Arizona Native Plant Society (AZNPS), Tucson Chapter, have been instrumental in assisting the BLM by organizing and coordinating buffelgrass treatments throughout the Monument. Over 17 years of studying the plant's growth and seeding patterns has led to a heightened understanding of what and when to spray, and what quantity to spray; this is reducing the density of the plant's population from over 50 plants per acre, to less than 10 plants per acre in many areas. Native vegetation appearing where dense patches of buffelgrass once existed is evidence of success.

Other challenges include access and Off-Highway Vehicle (OHV) route sprawl. Public access status was evaluated within the Monument and several areas were identified as having "restricted public access" according to Dingell Act criteria. The evaluation will inform future potential legal public access acquisition and road maintenance efforts.

Complaints of unauthorized OHV routes within the Sawtooth Mountains area were received and investigations revealed several miles of routes in non-compliance with the Monument's Travel and Transportation Management Plan. The errant routes were posted with signs and the entry points rehabilitated so they did not attract attention and additional vehicle access.



Dispersed camping continued to gain in popularity throughout 2022. An increase in boondocking was noticeable, including some areas, such as Pump Station Road, designated as tent camping only. In some instances, visitors chose to stay beyond the designated 14-day limit. Our ability to manage increases in Recreational Vehicles (RV) and motorhome use was exacerbated by third party websites promoting free camping areas, caravan parks, unique RV locations and other popular RV destinations. The information provided was not always accurate.

We continued to manage incidents of trash sites and illegal recreational shooting with increased law enforcement presence and the addition of signs prohibiting shooting within the Monument. This enabled BLM staff, interns, and our FIF partners to focus on the removal of errant trails, maintenance of trailheads and fences, buffelgrass spraying, and erosion mitigation.

Visitors

Visitation to the Monument increased in 2022, having hosted an estimated 67,000 members of the public. The uptick was documented with new traffic counters, which captured visitation at key Monument entry points. The increase in visitation could have been attributed to social media sites promoting areas on the Monument for quality recreational experiences.

FIF's continued outreach efforts to the local community informs them of all that the Monument had to offer. FIF continues to offer and maintain a digital map of the Monument, which is a downloadable pdf file for printing. Alternatively, it can be downloaded from the Avenza app on Apple and Android devices.



Partnerships

The FIF and AZNPS contributed over 2,000 volunteer hours with 45 volunteers going out in small groups of 10 or less, meeting several National Monument management, outreach, education, and maintenance objectives.

The BLM and the AZNPS partnered together to plan a Public Lands Day event, designed to recognize all the work accomplished on the Waterman Restoration site and celebrate the installation of four interpretive signs intended to enhance public educational opportunities about restoration efforts. The site, once consisting of bare compacted desert soil and invasive buffelgrass, is now a recovering Sonoran Desert ecosystem. The landscape was restored through the efforts of volunteers like John Scheuring, working with the FIF, the AZNPS, Sierra Club, Boy Scouts of America, and Tucson Cactus and Succulent Society, who planted native species, eradicate buffelgrass, and install water harvesting features.

Cleaning Up and Starting Over

Beginning in 2005 many people volunteered to help heal this land.

2011 **2014** **2021**

Buffelgrass
(Pennisetum ciliare) was introduced from South Africa by the U.S. Department of Agriculture in the 1930s as a range grass for cattle because it could withstand grazing pressure and erosion. By the 1990s, buffelgrass had become a serious invasive weed, especially on desert slopes of southern Arizona. It outcompetes native plants for soil moisture and is highly flammable.

Plastic mulch and other materials in this desert are highly vulnerable to fire. In recent years, buffelgrass fires have destroyed thousands of saguaro cacti.

Between 2005 and 2007 volunteers led by the Sierra Club removed buffelgrass by hand digging.

In 2010 the BLM contoured and ripped the compacted soil to accelerate restoration activities. That same year the Arizona Native Plant Society initiated multiple projects to remove buffelgrass, seed native desert trees, and construct water harvesting features.

The buffelgrass was eliminated after eight years of persistent spot herbicide treatment followed by manual cleanup. Foothill Palo Verde, Ironwood, and Whitethorn Acacia trees were seeded by hand.

By 2016 over 2,000 tree seedlings and Ocotillos were well established without supplemental irrigation. Over 100 native plant species had taken root from seeds naturally dispersed from the adjacent desert.

Volunteer groups including Boy Scout Eagle service projects, University of Arizona classes and clubs, Friends of Ironwood Forest, and Arizona Sonora Desert Museum groups contributed over 7,500 hours of work.

Starting in 2021 salvaged saguaros have been transplanted next to young desert trees.

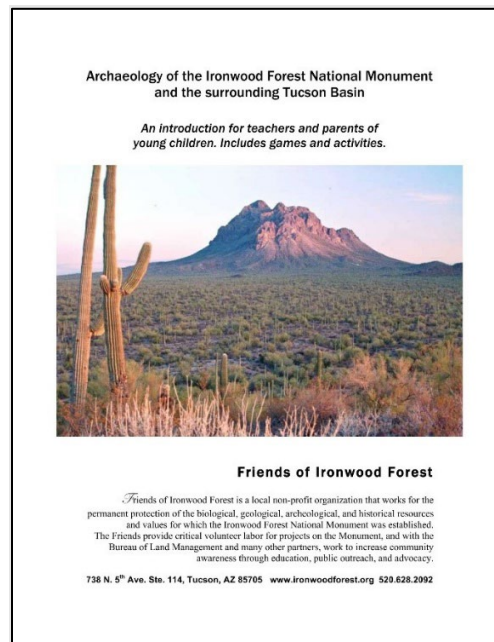
The AZNPS, Tucson Chapter, continues to be active in the restoration of the former decorative rock mill and airstrip within the Monument. Work includes seeding treeless

areas with local native seed, controlling water movement, and stabilizing soil against erosion, covering bare areas with slash, and removing invasive plants. Buffelgrass that once covered the site is now difficult to find in many locations. Instead, the area supports over 120 native plant species, including the endangered Nichol's Turk's-head cactus, as well as returning populations of insects, reptiles, and mammals.

The AZNPS have also been instrumental in organizing and coordinating volunteer projects, which inventory, monitor and treat buffelgrass throughout the Monument. They continue to work with the BLM and FIF on a strategic approach to coordinating control efforts.

The FIF continues to be proactive with the southern Arizona community, producing two bi-annual newsletters on their website informing the community about their engagement with other partners and activities within the Monument.

In 2022, over 600 participants engaged in educational and interpretive opportunities delivered by the Monument partnerships.



Other partners include the Tucson Soaring Club and the Department of Defense who, via Land Use Permits, use the Monument to conduct ongoing business in support of their respective missions and objectives.

Science

In fiscal year 2022, a science plan was drafted for the Monument. The plan identifies special status species that could and do occur in the Monument, and the methods to monitor and assess these species.

Several institutions, including the University of Arizona, the University of New Mexico, and San Diego State University conducted ecological studies in the Monument. These studies included:

- A genetic study of Elephant tree in the Waterman Mountains
- Mapping and monitoring of Nichol's Turk's-Head Cactu (*Echinocactus horizonthalonious* var. *nicholii*)
- Rattlesnake prey and diet study
- Desert iguana habitat and diet study
- Scorpion distribution and life history



Events

As part of their support for National Public Lands Day 2022, the FIF continued to offer virtual content, covering topics normally presented at in-person outreach events using the naturalist experts. The video productions are now available online for schools and their students, as well as the public, at no cost.



NATIONAL CONSERVATION LANDS

Ironwood Forest National Monument

Gila District Office
Bureau of Land Management
Tucson Field Office
3201 E. Universal Way
Tucson, AZ 85756
Phone: 520-258-7200

Report compiled by:

Michael S. Dixon, Assistant Field Manager Non-renewable Branch
Theresa Condo, Natural Resource Specialist
Clint Dalton, Archeologist
Keith Hughes, Wildlife Biologist
Anthony Johnson, Park Ranger
Francisco Mendoza, Outdoor Recreation Planner
Dan Moore, Geologist
Robert Walter, Natural Resource Specialist (Recreation)
Bill Werner, Realty Specialist

The mention of company names, trade names, or commercial products does not constitute endorsement or recommendation for use by the federal government.