



**NATIONAL
CONSERVATION
LANDS**

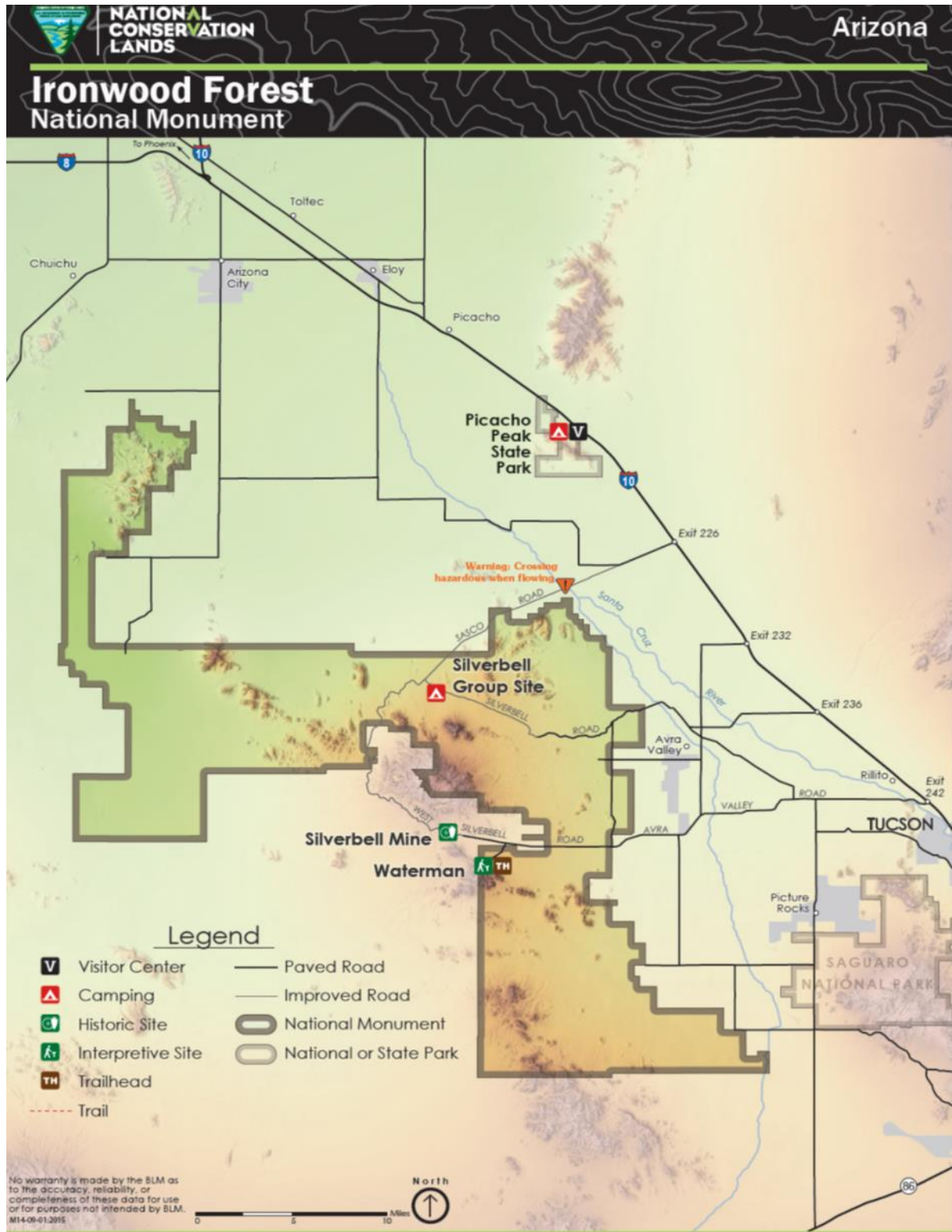
Arizona
2021: Annual Manager's Report

Ironwood Forest

National Monument



Map



Accomplishments

The Bureau of Land Management (BLM) and Friends of the Ironwood Forest (FIF) collaborated on the development 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 utilizes technology to enhance educational programming, visitor engagement and outdoor recreation experiences for the next generation of public land users. Nine challenges, with cultural, wildlife, plant species, recreation, and geography elements are being created for the Ironwood Forest National Monument (IFNM or Monument). After the mission and challenges are finalized, the application will be available in both the Apple Store and Google Play Store.

Through an Assistance Agreement with American Conservation Experience (ACE), a two-person crew and one lead intern assisted with trash pick-up, fence repair, and wildcat trail removal. The ACE crew repaired approximately 5 miles of fence, placed 22 informational signs and/or kiosks, removed 2,800 pounds of trash at over 322 unique sites, sprayed over 6 acres of Buffelgrass, mitigated 5 miles of illegal trail, and supported threatened and endangered species recovery projects for the Huachuca Water Umbel, Desert Pup Fish and Top Minnow.

The IFNM 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.

In 2021, BLM issued 11 Special Recreation Permits (SRPs) and implemented a new federally mandated data collection strategy: Assessment, Inventory and Monitoring (AIM). The AIM monitoring protocol was conducted at 10 sites, covering 9 allotments within the Monument.

Challenges

The primary invasive species of concern on the IFNM is buffelgrass. Buffelgrass crowds out native vegetation and can create a continuous fuel source, causing more frequent and severe wildfires than normal in the Sonoran Desert ecosystem. In 2021, herbicide treatments occurred in August through September following one of the wettest monsoon seasons on record. In the monument, contractors spot sprayed over 300 acres of buffelgrass, and volunteers sprayed over 50 acres. Several infestations of buffelgrass were manually removed in the winter as well. Volunteers from the Arizona Native Plant Society (ANPS), Tucson chapter, have been instrumental in assisting BLM in organizing and coordinating buffelgrass treatments throughout the IFNM. Over 16 years of studying the plant's growth and seeding patterns has led to a heightened understanding of what and when to spray, and in what quantities 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 that the hard work is finally paying off.



Volunteer assisting with buffelgrass treatment

Access and Off-Highway Vehicle (OHV) route sprawl are other challenges. Public access status was evaluated in 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.

Additional complaints of OHV-initiated ground disturbance within the Sawtooth Mountains area were received and investigation revealed several miles of routes in non-compliance with the Monument travel and transportation management plan. The illegal routes were posted with signs and the entry points rehabilitated so they do not attract attention and further vehicle access.

In response to public complaints about the poor condition of Silverbell Road, the Tucson Field Office (TFO) has initiated discussions with Pima County as right of way holder. Because Silverbell Road is possibly the road most utilized to access the IFNM, this situation continues to be monitored closely for action by the county.

Geocaching activity saw an increase during 2021 in the Monument and other lands in the TFO. An inventory of existing geocache sites in the Monument was conducted

following requests for caches in sensitive locations. The inventory will be used to monitor this activity and avoid potential impacts on Monument objects.

Incidents of trash sites and illegal recreational shooting have gone down markedly with increased law enforcement presence and a ban on shooting within the Monument. This has enabled BLM and intern staff, as well as our FIF partners, to focus on the removal of illegal trails, maintenance of trailheads and fences, Buffelgrass spraying, and erosion mitigation.

Visitors

Visitation to the IFNM increased in 2021, hosting an estimated 28,000 members of the public. The uptick is attributed to changes made in how programs were delivered to students, as education participation increased by 25 percent from 2020 numbers, for a total of 250 education participants. The IFNM saw approximately 275 interpretive participants, and received benefits associated with 1,880 hours of volunteer attention.

Issuance of SRPs increased slightly in fiscal year 2021 from 8 to 11. On the IFNM, two SRPs were reissued, six existing SRPs were administered, and three new SRPs were issued. Permits issued on the IFNM include outfitter-guide services, OHV touring, and organized group activities.

Partnerships

The FIF contributed over 800 volunteer hours with 23 volunteers going out in small groups of 10 or less, meeting several National Monument management, outreach, education, and maintenance objectives. Other partners include the Tucson Soaring Club and the Department of Defense who via SRPs, use the IFNM to conduct on-going business in support of their respective missions and objectives.

Other FIF partner contributions include a new digital map of the IFNM to answer common questions from the public. The digital map was released in June 2021 on the



Figure 2: Ironwood Forest map created by BLM partner organization, Friends of the Ironwood Forest.

FIF website. The digital map is a downloadable pdf file for printing or can be downloaded from the Avenza application on either an Apple or Android device. 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 in the Monument.

The ANPS, Tucson Chapter continues to be very active in the restoration of the former site of a decorative rock mill and airstrip within the IFNM. Work includes seeding treeless areas with native seed collected locally, controlling water movement and stabilizing soil against erosion, covering bare areas with slash, and removing invasive plants. Buffelgrass once covering the site, is now difficult to find in many locations. Instead, the area supports over 120 native plant species, including the endangered Nichol Turk's-head cactus, as well as returning populations of insects, reptiles, and mammals.

The ANPS have also been instrumental in organizing and coordinating volunteer projects, which inventory, monitor and treat buffelgrass throughout the IFNM. They

continue to work together with the BLM and FIF on a strategic approach to coordinating control efforts.

Science

Multiple research projects take place within the IFNM with the intent to improve public and BLM understanding of IFNM resources. The exceptional quality and diversity of the desert habitats contained within the IFNM have prompted several institutions, including the University of Arizona, the University of New Mexico, and San Diego State University to conduct multidisciplinary research.

Recently completed and current research efforts within the IFNM under BLM authorizations are summarized below.

Figure 3: Cactus growing at active resource mitigation site.



There is a study researching the genetic basis of sex ratio of Elephant Tree on Waterman Mountain being completed. And there are five projects in progress studying lizard metabolism, scorpion activity, Nicol Turks head cactus mapping, predatory strategy and diet of rattlesnakes, and Nicol Turks head cactus monitoring.

Events

All normally scheduled events were cancelled in 2021 due to Covid pandemic concerns. As part of their support for 2021 National Public Lands Day, the FIF generously developed video segments, covering topics normally presented at in-person outreach events, using the same naturalist experts. The video productions continue to be available online for schools and their students, as well as the general public, at no cost.



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

Report compiled by: Jewell Jones, Land Law Examiner and Colleen Bergmanis,
Assistant Field Manager, Nonrenewable Branch

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