

# *Technological Applications*

## Cameras and cell phones at the bioblitz

By the Editor

**P**HOTOGRAPHY HAS LONG been used as a tool for wildlife documentation, identification, and education. More recently, however, it is being coupled with communications such as those made possible by cell phone technology and wireless Internet (WiFi). Mobile phone cameras are the norm, and nature observation “apps” are increasingly being developed for smartphones and tablets, which facilitate natural history observations and

reporting. Photo-hosting Web sites such as iNaturalist.org are popular for involving citizen scientists in the assembly of photo collections and nature observation libraries, though collection curators with specialized knowledge are still a necessity to confirm observations. In national parks associated with population centers, bioblitz participants who have preregistered with a host Web site and installed the corresponding app may be able to take and upload photos and observations

directly from the field to a predetermined photo gallery or database for later study. In parks where WiFi or cell phone service is not easily accessible or when photos need subsequent processing, these records can be shared when participants return home. Technical challenges come with the territory, of course, but the digital devices that park visitors commonly carry now make it possible for them to more easily contribute their skills to the study of park biota. As we report below (and on pages 22 and 51),

park staffs have begun to explore ways to engage this next generation of park stewards through the use of these technologies and to evaluate the scientific robustness of this information.

On the following pages we also profile several parks that are using remotely operated cameras to survey wildlife and environmental conditions. This mechanism is versatile in how and where it can be employed, and techniques for analyzing

the vast number of photos that result are rapidly improving. Data derived from the pictures can be used to estimate wildlife populations, and the images themselves document wildlife behavior. Compared with traditional surveys, this camera technology also reduces costs and human disturbance while increasing chances of documenting highly secretive species. Protocols are available to help users design and deploy such systems, which have potential for wildlife community monitor-

ing at the landscape level. Several parks have received funding from the Biological Resource Management Division to launch wildlife camera projects later this year and in 2015.

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