

GigaBlitz will turn high-resolution images of nature into global inventory of organisms, habitats

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Nature is just outside your door — in your backyard, a vacant lot next door or perhaps a stand of trees down the block. During the week of this year's summer solstice, June 18-24, people worldwide are being urged to create gigapixel imagery of this natural environment as part of the first Nearby Nature GigaBlitz.

As envisioned by a trio of biologists and their partners at Carnegie Mellon University's CREATE Lab, the GigaBlitz would involve scientists, students and amateur naturalists in a global effort to reveal the extraordinary biodiversity of the ordinary settings where people live, learn and work. Details about GigaBlitz are available at science.gigapan.org .

"Many people have become acquainted with the concept of a 'BioBlitz,' which is a short, intensive period in which scientists and citizen volunteers attempt to identify every living species within an area, such as a park," said Ken Tamminga, professor of landscape architecture at Penn State University and one of the event organizers. "GigaBlitz will extend that idea beyond one designated area to include any natural habitat on Earth within range of a camera."

Participants are asked to create gigapixel panoramas, or GigaPans, of nearby habitat during the solstice week of June 18-24. GigaPan is a technology developed by Carnegie Mellon and NASA that combines

hundreds of digital photos into a large panorama that can be interactively explored via computer. More than 5,000 GigaPan camera systems, which can be used with virtually any digital camera, are in use worldwide and available commercially through GigaPan Systems Inc.

Each participant would upload their GigaPans of nature in their neighborhood to the GigaPan website where they and other participants can share in the process of identifying all of the plant and animal species visible in the images. The best panoramas, as selected by a jury, will be published in the online GigaPan magazine.

In addition to Tamminga, the GigaBlitz is being organized by Dennis vanEngelsdorp, Pennsylvania's state apiarist, and M. Alex Smith, assistant professor of integrative biology at the University of Guelph, Ontario. All three are fellows of the Fine Outreach for Science, a project funded by the Fine Foundation of Pittsburgh to foster scientific use of gigapixel imagery.

Other citizen science initiatives, such as Cornell University's annual Great Backyard Bird Count, have proven valuable for documenting the distribution and movement of species over a broad area.

"No scientist or group of scientists is able to routinely mount such a massive effort," noted Illah Nourbakhsh, a professor in Carnegie Mellon's Robotics Institute and head of the CREATE Lab. "GigaBlitz follows that tradition. GigaPan technology is making possible a new type of biological survey that we expect to stimulate new understanding and appreciation for organisms and their habitats."

The organizers anticipate that GigaBlitzes will take place annually during the summer and winter solstice weeks — the solstice day, plus the three days before and after. The solstice weeks tie the events to seasonal rhythms in both hemispheres and allow participants several occasions to

capture images of their chosen subjects when changing light and weather permit.

Provided by Carnegie Mellon University

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