

## Introducing the Junior Cave Scientist Program

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Beginning in the summer of 2014, the Geologic Resources Division (GRD) of the National Park Service successfully developed a Junior Cave Scientist booklet (Figure 1) and badge (Figure 2) as part of the NPS Junior Ranger Program. Overcoming several setbacks and other problems, the team of Limaris Soto, Joe Camacho, Jim Wood, and Dale Pate completed the booklet by early 2015 and received 20,000 printed copies of the 24-page Junior Cave Scientist booklet by mid-April 2015. Through a chance encounter, Joe Camacho recruited Paloma Hernandez, an art student at the University of Colorado at Boulder to draw a stunning illustration for the front cover. In a similar vein, Limaris Soto worked with and modified a drawing provided by the talented Beth Fratesi to create an image that became the center point for the program's badge. Unlike most of the Junior Ranger program badges, this badge is wooden with wording and the illustration etched into the wood by laser.

The Junior Cave Scientist booklet is designed for kids of all ages and covers a number of topics in a fun way. Using the booklet, kids learn: the definition of caves and karst, that cave scientists are also known as speleologists, how to be safe, how to take care of the incredible, yet fragile resources found in caves, about the different types of caves and the mineral decorations known as speleothems, about the categories of animals that are found in caves, and get to take a look at a few of them including microbiology and bats. They also get to play a board game that takes them through the different zones found in a cave, they learn more about myths that surround bats and about White-nose Syndrome, the deadly disease that is

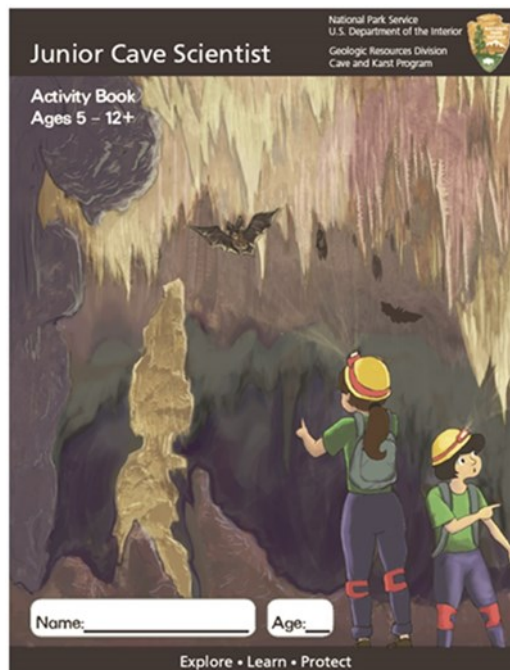


Figure 1. Junior Cave Scientist booklet

killing millions of hibernating bats. As they make their way through the booklet, they learn of fossils and paleontology along with archeology. And last, but certainly not least, they learn of karst and groundwater, sink-holes, the ease at which pollution can contaminate regional aquifers, and how their actions can help preserve and protect caves and karst landscapes.

These booklets are available in printed form, but also can be downloaded from our webpage in a high-quality .pdf or in a lower-quality .pdf. We also look forward to having a Spanish version available this coming year. Visit our webpage at: [go.np.gov/jrcavesci](http://go.np.gov/jrcavesci)

Initial reaction to this booklet and badge has been very positive. As of this writing (September 11, 2015), we have distributed approximately 12,000 booklets to

22 parks, 1 region, and 1 Washington office within the NPS, 2 other federal agencies, 1 state park, 1 private show cave, 3 grottos and the national office of the NSS, 1 girl scout group, and 3 elementary schools. The distributed booklets so far have been sent to 25 states, Washington DC, and Guam.

Please help spread the word. These booklets are available to any group, school, grotto, or individuals for their use in helping educate the public about the values of cave and karst resources. Junior Cave Scientists pledge to explore magnificent and beautiful caves, to learn about caves and karst systems and the work that speleologists do, to protect our national parks and the things that make caves and karst areas special, and to enjoy the national parks and share what they have learned with their friends and family.



Figure 2 Junior Cave Scientist badge

