

Be an Ecodetective

• Keep 'em Reading •

Grades
K-2, 3-5

by | Kelley Coyner



“Cock Robin lay on his back with his feet in the air. A red breast feather twisted in the wind, his cloven brown wings folded like a dancer’s fan. It was seven minutes past six a.m. on the twenty fourth day of May he was dead.”

— Opening lines of *Who Really Killed Cock Robin?* by Jean Craighead George

Though the characters and their adventures bring stories to life, the heart of an ecomystery is a question about nature. The story is driven by a search for answers. As Newbery award-winning author Jean Craighead George writes, “It is a mystery just like a detective story and is solved by following one clue to the next as scientists do.

That is not to say there is no adventure in an ecomystery. These tales pull readers over mountains, through deserted ruins, into caves, across suburban lawns, through golf courses, around condominium complexes, and even under water. Detectives are threatened by the elements and classic bad guys. Heroic kid sleuths confront human challenges like kidnappers, thieves, and poachers as well as natural challenges posed by cliff climbing and rappelling, avalanches, and unhappy mother Grizzly bears. Some kids-turned-environmental-activists like those in Hiaasen’s *Flush* and *Hoot* face scarier (or at least thornier) foes in the form of local government and national corporations.

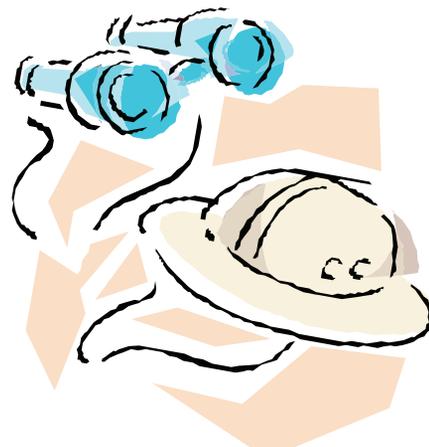
Ecomysteries are sneaky in more than one way. While the exciting story pulls the reader along, the well-researched story integrates science, geography, and history. Jean Craighead George (author of the Ecomysteries series), mother and daughter team Gloria Skurzynski and Alane Ferguson (creators of the National Park Mysteries series), Gary Robson (author of the *Who Pooped in the Park* series), and Carl Hiaasen each combine their story craft with a strong command of ecology.

All are careful with their facts. Robson asks scientists and park rangers to review each of his books to make sure his information is cor-

rect. Hiaasen draws on his knowledge of politics and history of ecological issues in South Florida. Skurzynski and Ferguson visit each National Park to interview key experts on the lay of the land and the animals found there. (In fact, each volume of the *Mysteries in Our National Parks* includes a short essay from an expert and a map.)

George uses everything she can find. She visits the scene of the mystery, local bookstores for information about the region such as the biology, culture, and history, and then comes home to write. She points out that she may not use everything that she finds, but she says understanding nature is critical to her books. “What has been the most useful to me in writing ecomysteries is knowledge of natural history and the excitement of such questions as why did the bird die?”

Based on their collaborative sleuthing as a group or individuals, students can create their own ecomysteries. Like a biography project, an ecomystery project allows students to become detectives, follow their interests, gather information, and tell a story of what they have learned. Like Robson, Skurzynski, Ferguson, Hiaasen, and George they can follow a question about nature to its answer.



Start by Reading an Ecomystery

Divide the class into teams for three to five. Ecomysteries call for a variety skills in research and writing. (Skurzynski and Ferguson teamed to join one's science writing skills with other's mystery talent.) A team allows students to complement each other's interests and abilities as well as to appreciate the complexities of ecomysteries. Ask each group to read at least one ecomystery. Have the students think about what central question about nature the book poses. How did the kid detective unravel the mystery? What facts from science or history or current events did the author use in the story? What clues does the author give in each chapter?

Milestone 1

Have students note this information on a simple chart. The final product helps students untangle the structure of the story and map their own effort.

Find an Idea

A news story often captures a mystery writer's imagination. A story from the local paper or an online search often generates a story like this one about bats at Carlsbad Cavern. Provide students with news stories or ask them to find their own. With an article in hand, brainstorm the questions that the storyteller will need to answer. For example, what happened to the bats? Who were the witnesses? What was happening on the scene at the time? Where did the action take place? Is there anything special about this location?

- On the morning of April 5, 2005, park employees found 106 dead Mexican free-tail bats on the Natural Entrance trail in the upper end of Carlsbad Cavern's twilight zone. The bats were scattered along the trail and on the walls on two switchbacks in an area open to the night sky. Visitors and park employees were left to wonder why—high winds are the suspected culprit.

Ecomysteries for All Ages

- There are ecomysteries for all ages.
- Crafted for readers in grades three to five, the National Park Mysteries series includes ten volumes each based in a different national park. The picture book series for preschoolers to first grade *Who Pooped in the Park?* by Gary Robson focuses on poop (scat) and footprints (tracks). Jean Craighead George's four ecomysteries and Hiaasen's ecothrillers are a good fit for fifth to ninth graders. (See mini-reviews and bibliography for more information.)

Milestone 2

From their research, ecodetectives should choose an animal and a park for their ecomystery and have a tentative idea about what their mystery question will be.

Visit a National Park Virtually

A good story to fire up the imagination may be sitting on a park's Web site. There are links to all the National Park Web sites at www.nps.gov. Many offer a virtual field trip, photo galleries, and Web cams that allow virtual visitors to tour from afar. The majority of the sites have History and Culture pages with articles about Native Americans, early settlers, and conservation efforts in the area as well as a bibliography. Often individual parks offer a monthly newsletter for kids and/or teachers. A News link typically leads to current stories of ecological mysteries at the park.

Milestone 3

After looking at news stories and making a virtual visit to a park, teams should have a mystery firmly in mind. They should describe their mystery or question in writing and develop a list of things they know about their mystery and what they need to learn to answer their question.

Become an Animal Expert!

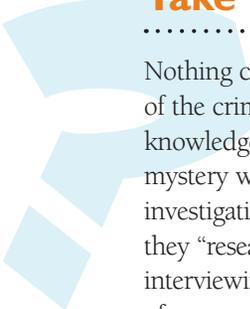


Good police work typically means getting to know your victim. In an ecomystery, this means knowing your animal. Investigation into the location for a news story may lead to good information about the ecodetectives' chosen animal. This may also be a good time to direct your sleuthing teams to find book and magazine articles on their animals.

Milestone 4

Detectives should list the key attributes of their animal, including its habitat, what it eats, its distinctive characteristics (such as mothers only attack when young are threatened, this animal is a plant eater, or it travels alone), and known threats to the animal.

Take a Road Trip



Nothing compares to a personal visit to the scene of the crime. An in-person visit gives firsthand knowledge of an animal's habitat. Sometimes ecomystery writers will even see the animal they are investigating. Skurzynski and Ferguson report that they "research each book by visiting each park and interviewing naturalists, biologists, geologists, and, of course, park police since our novels involve a mystery."

A site visit lets students take firsthand observations in words and drawings. George recommends not only taking field notes, but making sketches. Like George, students will "become aware of the details and because my fingers and mind have concentrated, I never forget." Every student should come with a notebook and a sketchpad.



With advance warning, park rangers, scientists, and park police may be available for students to interview the park and their animal. Have students prepare a list of questions in advance of their visit.

Park rangers may be able to help students observe an animal in its habitat. Kids may learn it is tough to actually see the animal they are researching. Skurzynski says that when they went to research "[i]n Yellowstone we sat with binocu-

lars in drizzling rain on a hillside at six in the morning, while the wolves stayed in their dens laughing at us. In Glacier we were warned to keep far away from grizzlies."

Finally, a visit may provide inspiration for characters or the storyline. George found that some of her stories came from on-location visits with her children and grandchildren. Kids should be encouraged to incorporate their own experiences into their stories. They can feature rangers they met and legends they learn.

You may decide that all ecomysteries will be based in a nearby national park and arrange a school trip to the park. Many parks host special class visits and even overnight adventures. Contact information of educational coordinators is typically easy to find on the Web site. Be sure to pull the tips on the Web site for park visits.

Milestone 5

Ecoteams meet and organize their efforts into an annotated outline. The outline will describe the central mystery, the featured animal and National Park, highlight key information from online, or onsite research. This outline should identify any unanswered questions. And finally ecoteams should give a summary of their storyline.

Note: The activity is developed for fifth to seventh graders. By providing more focus, it can be adjusted to younger age groups. For preschoolers, a teacher may ask students to think about the clues that animal tracks give us and then show preschoolers animal tracks or scat and talk about what the tracks tell us. For early grades, a librarian or teacher might structure research by providing two or three ideas for stories, streamlining research by giving specific Web sites to work from, or making the activity a whole group endeavor.

Ecomystery Bibliography

Mysteries in Our National Parks series by Gloria Skurzynski and Alane Ferguson. Each volume in the features the Landon siblings Jack and Ashley as they

encounter a mystery about an endangered species in one of the nation's fifty national parks. They are accompanied by their wildlife vet mom Olivia and photographer father Stephen and various foster children. Recommended for grades 3–5.

- *Buried Alive*. National Geographic Press (Denali National Park), 2003.
- *Cliff-Hanger*. National Geographic Press, 2002 (Mesa Verde National Park), 2002.
- *Deadly Waters*. National Geographic Press (Everglades National Park), 2001.
- *Escape from Fear*. National Geographic Press (Virgin Island National Park), 2001.
- *Ghost Horses*. National Geographic Press (Zion National Park), 2002.
- *The Hunted*. National Geographic Press (Glacier National Park), 2001.
- *Out of the Deep*. National Geographic Press (Acadia National Park), 2002.
- *Over the Edge*. National Geographic Press (Grand Canyon National Park), 2002.
- *Rage of Fire*. National Geographic Press, (Hawaii Volcanoes National Park), 2002.
- *Running Scared*. National Geographic Press (Carlsbad Cavern), 2002.
- *Valley of Death*. National Geographic Press (Death Valley National Monument), 2002.
- *Wolf Stalker*. National Geographic Press, 2001 (Yellowstone National Park), 1998.

Best-known for the My Side of the Mountain and Julie of the Wolves trilogies, Jean Craighead George pioneered ecomysteries for kids. Written for fifth to seventh graders, her four ecomysteries include:

- *The Case of the Missing Cutthroats*. HarperTrophy, 1999.
- *The Fire Bug Connection*. HarperTrophy, 1995.
- *The Missing 'Gator of Gumbo Limbo*. HarperTrophy, 1993.
- *Who Really Killed Cock Robin?* HarperTrophy, 1995.

With the inception of the Who Pooped in the Parks series in 2004, Gary Robson provided a picture book version of ecomysteries for four to eight year olds. Capitalizing this age group's fascination with scat (animal poop), Robson takes readers on a tour of a different park and animal in each volume. The two constant characters Robert, age eight, and his sister travel with their parents to national parks in search of wild animals. Frequently disappointed that they don't actually see the animals, Emily and Robert quickly focus on what you can learn from animal scat and tracks. Robson has written thirteen books mostly set in national parks. The next three books in the series will be Big Bend National Park (Texas), the Black Hills (South Dakota), and Death Valley (California). Current available titles include:

- *Acadia*. Farcountry, 2005.
- *Glacier National Park*. Farcountry, 2004.
- *Grand Canyon National Park*. Farcountry, 2005.
- *Grand Teton National Park*. Farcountry, 2004.
- *Great Smoky Mountains National Park*. Farcountry, 2005.
- *Olympic National Park*. Farcountry, 2005.
- *Red Rock Canyon National Conservation Area*. Farcountry, 2005.
- *Rocky Mountain National Park*. Farcountry, 2005.
- *Sequoia and Kings Canyon National Parks*. Farcountry, 2005.
- *Shenandoah National Park*. Farcountry, 2005.
- *Yellowstone National Park*. Farcountry, 2004.
- *Yosemite National Park*. Farcountry, 2005.
- *Sonoran Desert*. Farcountry, 2005.

Previously known for his fiction for adults and work as a columnist for the *Miami Herald*, Carl Hiaasen turned to young adult readers with his two ecothrillers. These titles are:

- *Hoot*. Knopf, 2004.
- *Flush*. Knopf, 2005.