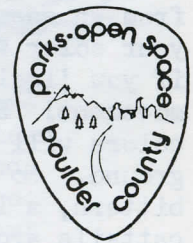


SUMMER
1985

Nature Detectives



"Who's been here?" "What were they doing and why were they doing it?" "When did it happen?" Nature Detectives try to answer questions like these by looking for clues and evidence of the activities of creatures in the outdoors.

Have you ever wondered about teeth marks on the trunk of a tree, or strange footprints in the snow or mud? If you have, then you are already a nature detective.

THEME:



CAMOUFLAGE

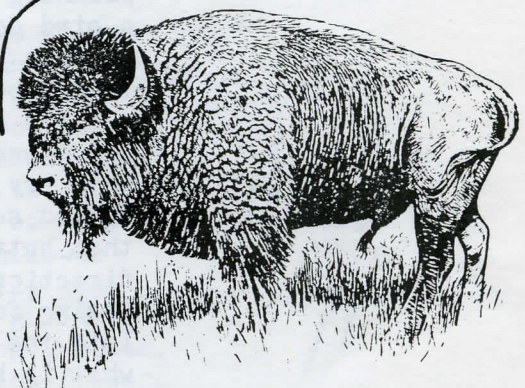
When you're as big as a bison, you can wander around the prairie munching on grass, and nobody interferes with you! But most herbivores (animals that eat vegetation) have to keep their eyes open for enemies all the time they are trying to find a meal. It helps if you can run fast, or fly away. But if you are tiny or slow, it helps much more if you blend in with your surroundings. A green grasshopper on green grass; a mottled gray horned lizard on a bank of gray gravel; a speckled green frog among the duckweed; these animals are all using color as camouflage.

It works for predators (animals that live by eating other animals) too! If a fox is trying to sneak up on a cottontail, it is better that the fox has fur the color of the dried prairie grasses, so that it cannot be easily seen by its prey.

Color can be part of a disguise that uses shape as well, so that a living moth can look like a dead leaf. Patterns of color can seem to change the shape of an animal—make it seem flat or broken into sections that don't seem like a living creature. Color can protect a baby bird on a nest and a bright yellow spider lurking on a yellow flower.

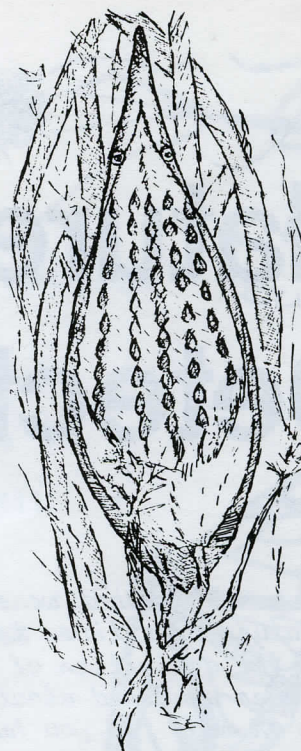
For sure, in nature, color isn't just for decoration!

I don't need
camouflage!

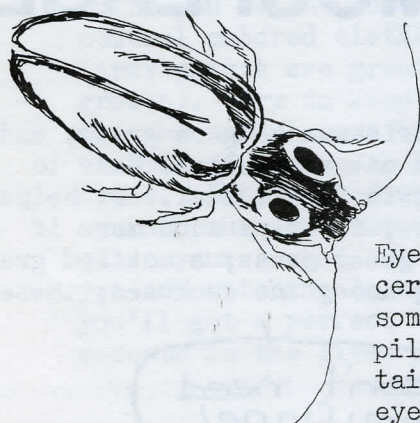


Freeze!

If you are an animal trying to stay hidden from an enemy, it doesn't matter how well your color blends in with your surroundings---if you jiggle around your enemy will see that movement! But freeze like a statue, and your colors will help you merge into the background. No bird does this better than the bittern, a large bird that lives among the cattails around ponds and marshes. This bird has light and dark lines running the length of its neck and body. When alarmed, the bittern stretches its body into a stiff, straight line, with its beak pointing to the sky, so that the streaks of its feathers line up with the cattails it is hiding in. . .and it freezes!! A predator could be looking right at that bird and never see it---so well does it merge into its background.



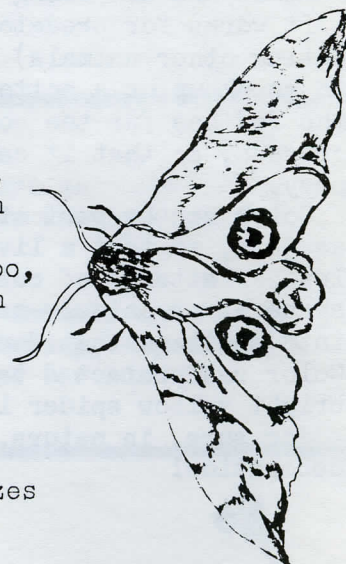
Bittern



Eyes front...and back

Eyes belong on heads, right? That's certainly the place for seeing eyes. But some butterflies, moths and their caterpillars have pretend eyes on their backs, tails or wings. These are just imitation eyes---they can't see---but they are enough to scare away many birds that might be planning to make a meal of them! And if a bird does peck at the big, glaring eyes, it does less harm to the butterfly or moth than a peck on the real eyes would do!

Birds expect eyes to be at the front, too, and expect butterflies to fly forward when they try to escape being eaten. Imagine a bird seeing a 'pretend' eye and seeing that butterfly fly off in the opposite direction than expected! It is so confusing for the bird that it very often lets the butterfly escape before it realizes what is happening!





Memorial Day babies

The best memorial day I remember was the day the fawns were born. There were two of them, and their mother came down into a thicket of wild plum trees near our yard to hide away to have her babies. They were dappled light brown and blended so well in the sunlight and shade under those bushes, that they were hard to see while they were still. They staggered to their feet such a short time after they were born and tried to follow Mom on their wobbly legs. But when she went off to browse on the hillside, she left them behind under the wild plum trees—safe from predators because they were camouflaged by their color, and because young fawns have no smell at all to give them away. There they would wait, patient and still, until their mother returned to feed them.

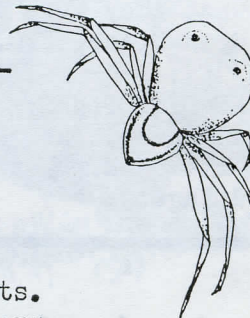
White egg/ brown egg



It's alright for birds that nest in holes in trees to have shining white eggs, for they can't be seen in the dark of the hollow. But birds that nest on the ground have to somehow stay safe from skunks and bullsnakes, and other creatures that like to eat eggs, or even birds. Sometimes the mother bird has feathers that blend with her nest and the surrounding plants as she sits incubating her eggs. When she sits quite still she is very hard to see, and she hides her precious eggs out of sight under her body. Other birds, like the killdeer, are more brightly colored, and leave the nest when danger is near, trying to attract an enemy further and further away from the nest by fluttering and crying, pretending to have a broken wing. Meanwhile, the eggs in her nest are quite hidden, because they are just like the speckled rocks they rest on.

Crab spider

Predators sometimes have the same colors as their surroundings allowing them to surprise and capture prey. The crab spider, so called because it moves sideways like a crab does not spin a web to catch food like most spiders. Its bright yellow body is the color of many of the yellow flowers of the sunflower family. The colors match so well, that the spider is difficult to see, giving it time to pounce on unsuspecting insects. Look for the crab spider on yellow flowers along roadsides, open fields or meadows, or in your own garden.





Pronghorn

Survival

Match the animal with the feature that helps it survive:

- | | |
|-----------------|------------------|
| 1. Bee | A. No scent |
| 2. Pronghorn | B. Shape |
| 3. Stick insect | C. Nasty taste |
| 4. Moth | D. Color |
| 5. Killdeer | E. Freezes still |
| 6. Skunk | F. Smell |
| 7. Fawn | G. Sting |
| 8. Crab spider | H. Eyespots |
| 9. Bittern | I. Speckled egg |
| 10. Monarch | J. Runs fast |



Stick Insect



Monarch
Butterfly

Tips for watchers

The best way to see lots of wildlife is to make sure the wildlife doesn't see YOU first! If you use the same strategies that animals do, you will be able to blend into the scenery while you watch what's going on. Try wearing neutral colored clothes, not bright colors, (army shirts are great for hiding in the undergrowth). Try to keep perfectly still and wait for the animals and birds to come to you, instead of trying to follow them around the place. Don't stand where you can be seen against the sky, but crouch down low to disguise your shape! And freeze if the animal you are watching looks your way—chances are you'll get a perfect view of some special moments in the lives of animals.

Mailbox

Tell us about hidden animals you've managed to see! Where and how—and what they were doing. Write to Nature Detectives, Boulder County Parks and Open Space, P.O. Box 471, Boulder, CO 80306.

NATURE DETECTIVES: Come and explore Walden Ponds for hidden animals and hidden animal homes. See how colors are important to survival! Saturday, August 10, 9:30-11:00 AM. Wear old clothes and shoes that don't mind mud (or come in camouflage!).

1-G, 2-J, 3-B, 4-H, 5-I, 6-F, 7-A, 8-D, 9-E, 10-C.

Answers:

