

SPRING  
1984

# 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:



## Ponds and Puddles

Wetlands, whether they are ponds, rivers, stream banks, or only puddles that last for a few weeks after a rain storm, are some of the busiest habitats you can explore, because all creatures need water. They (and we) can't live without it. Sooner or later by the pond or in the marsh, insects will hatch, birds will build their nests, foxes will hunt for mice, or deer will browse on shrubs and trees that grow in the damp places.

Cattails are marsh plants that are most used by animals. They can be food, home and hiding place for many creatures. Humans, too, have used them almost like a supermarket without shopping carts or cash registers. Indians used to "shop" at cattail plants for many items such as food, basketry materials, insulation, and "matches".

Many parts of the cattail were eaten. The starchy roots were ground up and used as flour in bread and pudding. In spring, the protein-rich pollen was gathered and used as flour, and the young stems and leaves, which taste similar to asparagus, were eaten raw or simmered. Young seedheads were roasted and eaten like corn on the cob! In late summer, the Indians collected the long leaves to weave into mats, sandals, and baskets. When



*Illustration by Robert Bliss*

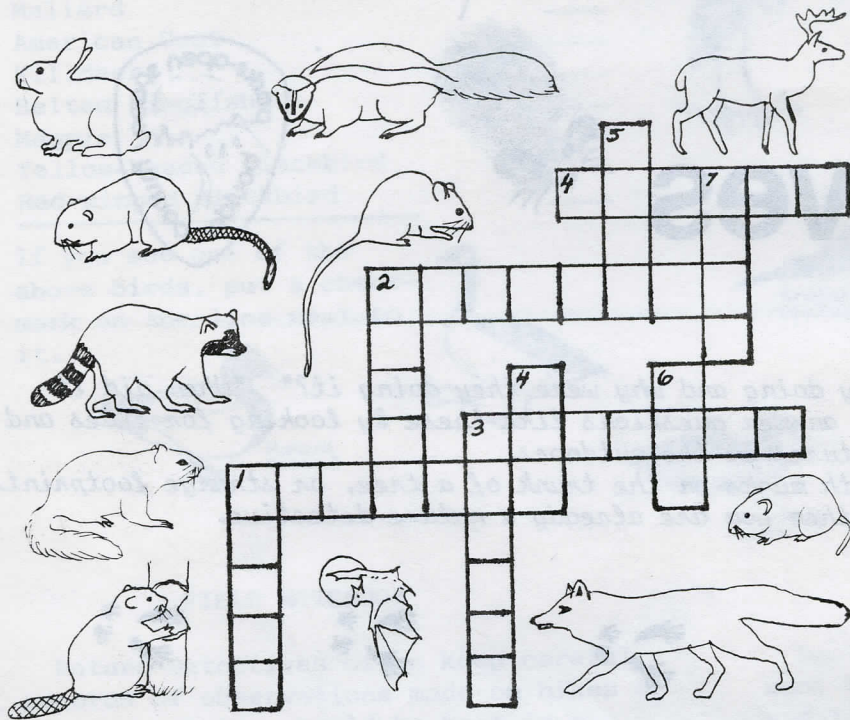
all came, the fluffy white seeds were collected and used as insulation in blankets and pillows, as well as for tinder for starting fires.

Cattail marshes are exciting habitats for Nature Detectives to explore! Some places to start in Boulder County are Walden and Sawhill Ponds, Viele Lake, and Thunderbird Lake.




# Mammals

This is your chance to show what you know about the mammals that live in and around ponds and puddles. (Mammals are furry animals that feed their young on milk from mammary glands.)  
Hint: The drawings around the crossword show the answers. (Answers are on back page.)



## DOWN

1. One of these tiny creatures may live in your house.
  2. This black and white "kitty" can make an awful stink.
  3. I'm not in the habit of seeing a .....
  4. You can see this mammal at dusk, hunting insects over the water.
  5. 
- Which animal makes these tracks?
6. "Oh, the ..... went out on a chilly night."
  7. This small mammal likes to make tunnels and runways in meadows. (Rhymes with "mole")

## ACROSS

1. It often lives in lodges in the water but doesn't cut trees.
2. This mammal lives in rocky soil but many of its relatives live in trees.
3. This loveable bandit is very fond of crayfish.
4. We've all seen this engineer's dams and lodges.

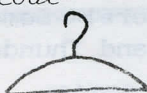
## Tools of the Trade

What tools do Nature Detectives need? The best tools of all are sharp eyes that are trained to see things that most people miss, and listening ears. Go quietly through the woods, wetlands or meadows so that you don't scare the many creatures that live there. Listen for the plop of a turtle as it launches itself off its basking log into the pond, or the alarm call of a Canada goose leading her goslings quickly to the safety of the water.

Other useful tools are:

1. A magnifying glass or hand lens (look at leaf skeletons, bug eyes, feathers).
2. A clear plastic box to put tiny creatures in while you examine them, so they don't crawl or wriggle away. (But PLEASE put them back in their right places quickly, so they can get on with their lives.)
3. A white bucket or dish (an empty gallon ice-cream bucket is good) to put your pond-finds in. It makes it easier to see dark insects or small fish. Again - PLEASE look and put back.
4. A fishing net with small mesh. You can make your own from a wire coat hanger and an old nylon stocking.

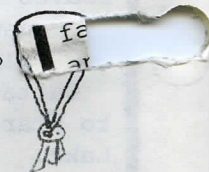
Make a loop from  
a wire coat-  
hanger



Thread the 'handle' through a small hole in the middle of a stocking with no foot



Pull the stocking  
over the wire loop  
and tie ends in a  
knot





# Amphibians

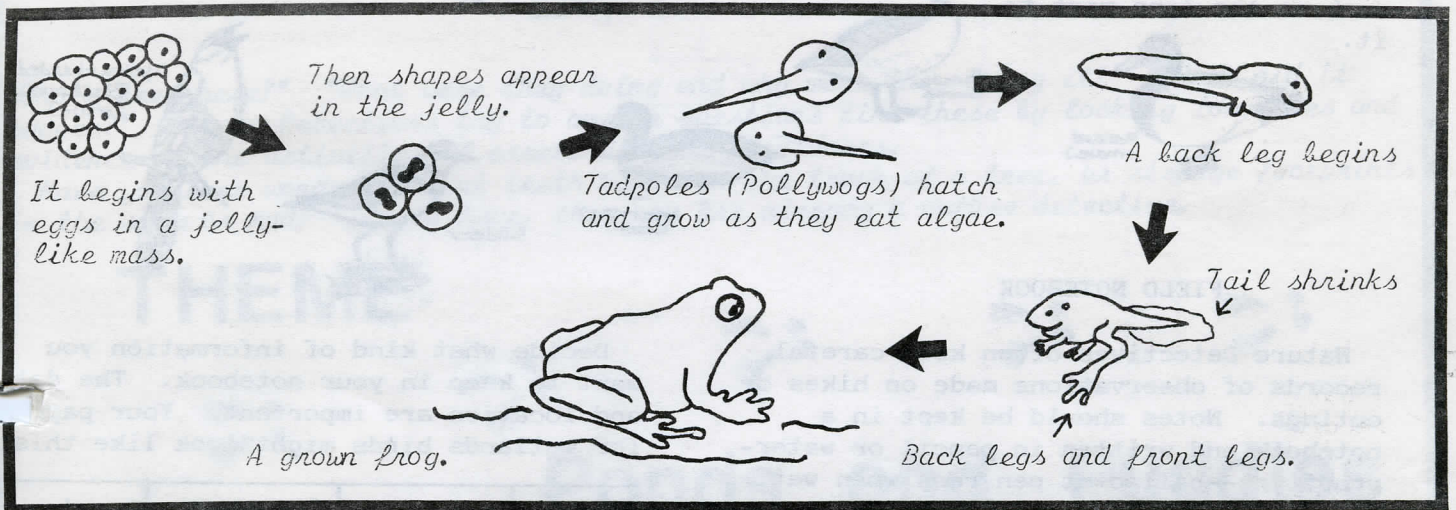
animals that have two lives, one in water, one on land.



One green speckled frog sitting on a hollow log might be a Leopard Frog waiting for breakfast to fly by...then zap!...out will flick his tongue, which is attached at the front of his mouth so it has a longer reach as a fly swat, and down will go another breakfast bite.

But it would take a great number of flies to fill a frog, so he eats earthworms, insect larvae from the pond, in fact anything that moves he will try to eat!

The biggest frogs that live in ponds in Colorado are Bull Frogs. They are green or greenish-brown and can be up to 8 inches long. Often they can be seen sitting in the shallow water of the marsh with their bulging, golden eyes showing above the water. Just behind their eyes are their ear drums, which show as round patches in their skin. They are 'nocturnal' or active at night, so if you go out at dusk with a flash light you can usually see them...or hear them. People say their voices sound as if they are saying "jug-o rum, more rum" or "better-go-round", What do you think?



## ... or Reptiles

☐ - amphibian

☐ - reptile

Amphibians: Frogs, toads, salamanders, have moist skin which feels slimy.

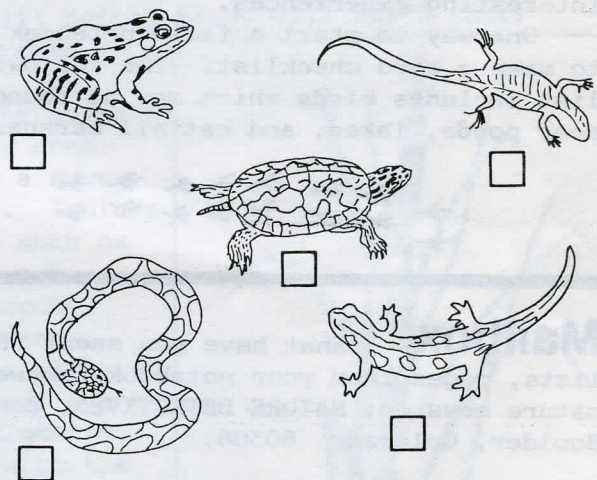
Reptiles: Snakes, lizards, turtles, have dry skin, covered with scales.

Amphibians have eggs that are surrounded by jelly-like material, and they must be laid in the water.

Reptiles have eggs that have tough, leathery skin. They are usually laid on land and the skins stop the eggs from drying out. (Some snakes, like the garter snake, have their babies live.)

Amphibian hands have a thumb and three or fewer fingers - with no claws.

Reptile hands usually have five fingers, with claws - the toes have claws too.



Can frogs and toads live in the desert where it is dry?

Where do turtles lay their eggs?

Can snakes swim?

Write and tell us what you know!



# Wetlands Bird Checklist

Great Blue Heron  
Black-crowned Night Heron  
Canada Goose  
Mallard  
American Coot  
Killdeer  
Belted Kingfisher  
Magpie  
Yellow-headed Blackbird  
Red-winged Blackbird

If you see one of the above birds, put a checkmark on the line next to it.



Mallard (male)



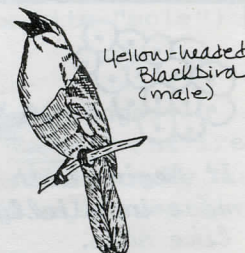
Canada Goose



American Coot



Killdeer



Yellow-headed Blackbird (male)



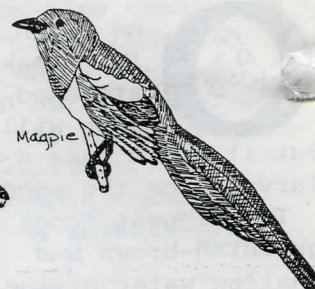
Kingfisher (female)



Black-crowned Night Heron



Red-winged Blackbird (male)



Magpie



Great Blue Heron

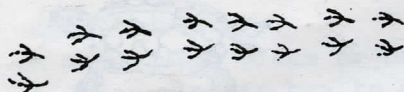
## FIELD NOTEBOOK

Nature Detectives often keep careful records of observations made on hikes or outings. Notes should be kept in a notebook and written in pencil or water-proof ink--ballpoint pen runs when wet. Notes could include: date, location, species(name of bird), number, behavior, time, and other observations. A field notebook can become a lifetime record of interesting experiences.

One way to start a field notebook is to make a bird checklist. The following list includes birds which may be found near ponds, lakes, and cattail marshes.

Decide what kind of information you want to keep in your notebook. The date and location are important. Your notebook for wetlands birds might look like this:

Date	Location	Species	Number
4/28/84	Walden Pond	Canada Goose	25
5/15/84	Viele Lake	Mallard	15
6/1/84	Sawhill Pond	American Coot	6



## Mailbox

What have you seen? Please send a copy of your observations, checklists, pages from your notebook, answers to games and puzzles, sketches, or any other nature news to: NATURE DETECTIVES, Boulder County Parks and Open Space, P.O. Box 471, Boulder, Colorado 80306.

\*\*\*\*NATURE DETECTIVES' SPECIAL PROGRAM\*\*\*\*

Come and explore Walden and Sawhill Ponds with us on Saturday, May 12. See IMAGES for details.

Answers: Down-1.Mouse 2.Skunk 3.Rabbit 4.Bat 5.Deer 6.Fox 7.Vole  
Across-1.Muskrat 2.Squirrel 3.Raccoon 4.Beaver

