

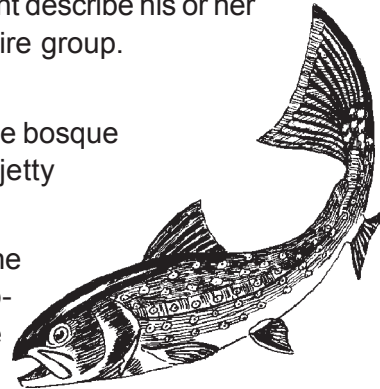


Section A: Rio Bravo

2. Set up the river as Rio Bravo (see “Changing River” activity).
3. Option a: Animal Match: Hand out to the class the cards with pictures and descriptions of the Rio Bravo animals, making sure that no student receives the picture and drawing for the same animal. Have the students take turns reading a description, with classmates guessing which animal is being described. The student with the matching drawing should place the animal on the model in the habitat described in the reading. Continue around the room until all the animal descriptions are read and all the drawings are placed on the model.
- or Option b: If you have less class time, hand out the animals with their descriptions to the students. Each student should have at least one animal of his or her own. Have the student carefully read the description and decide where that animal lives. What is its habitat? Students should then place the animal on the bosque model in a location where it would best live. Place them on the Rio Bravo bosque—before the ditches, levees and homes. Have each student describe his or her animal and where it lives to the entire group.

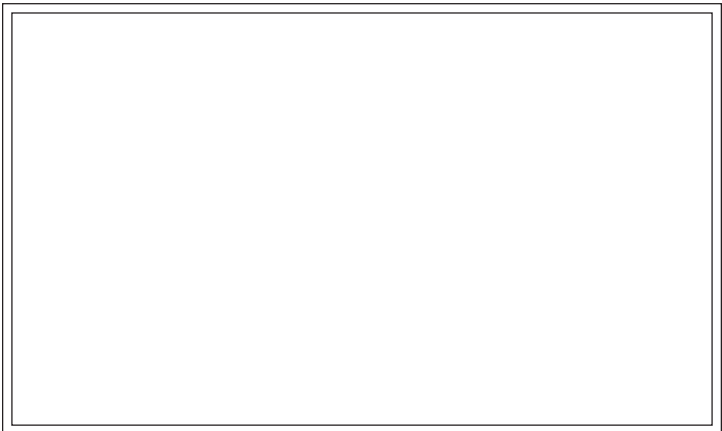
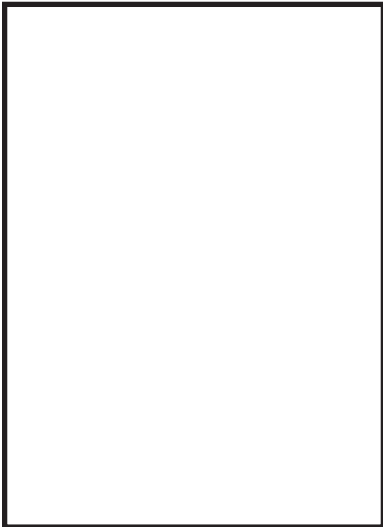
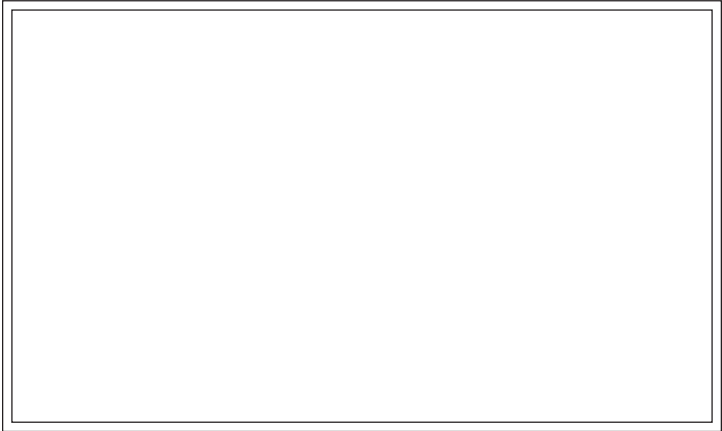
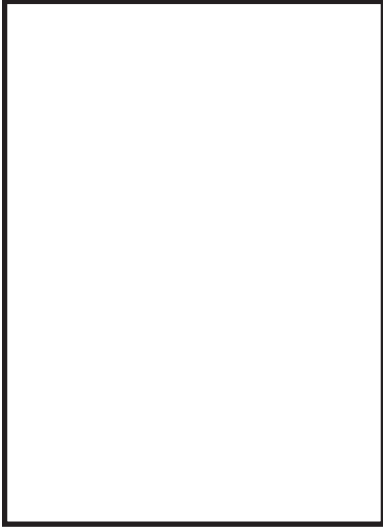
Section B: Rio Manso

4. Now add the human alterations to the bosque model: irrigation ditches, levees, jetty jacks, etc. (Rio Manso).
5. Place the introduced species on the model, using the method from Option A or Option B above. Ask the students if any of their animals are affected by the change in the river or the introduced species of animals. Which animals are thriving because of the changes and which have lost habitat?
6. Have the class review “Threatened and Endangered Animals” near the end of this activity—a brief summary of some threatened, endangered, or extinct bosque animals.



Section C: Rio Nuevo

7. Discuss what impacts restoration projects can have on these animals (Rio Nuevo changes). Using restoration project ideas from “Changing River” or from the students themselves, adjust the cards (such as removing exotic species) based on student discussion.





Who Lives Where? cards

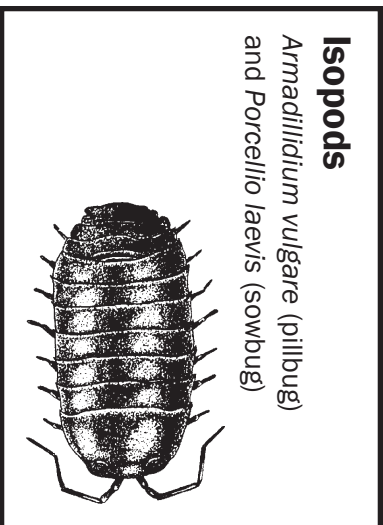
Part 2A: Rio Manso: Animals Introduced to the Middle Rio Grande Bosque

Text for older students top in single-line box, for younger students below in larger type in double-line box.

The following cards are for use with the model set up as Rio Manso, the tamed river. These are animals that did not evolve in this area, but have been introduced into this ecosystem, both intentionally and accidentally. Often, introduced species out-compete native species, especially when the natural environment has been altered. The river is like an island for the natural species that live there—a long narrow island. They cannot live far from the wet riparian environment. In this restricted area, introduced species and habitat destruction have a great impact. By destroying habitat, the narrow bosque area is cut into smaller pieces that support fewer and fewer native species.

I have 14 legs! I may roll into a ball to protect myself. I live on the forest floor among the leaves as crickets do. I eat dead leaves, leaving behind the “skeleton” of the leaf. Sometimes I eat animal scat (that’s the word biologists use for “poop”!). Harvester ants may catch me, kill me, and carry me down into their burrow. Other small animals may eat me too. We arrived in the U.S. as unplanned cargo in ships from Europe and have spread here, taking over the role crickets had.

I have 14 legs! I may roll into a ball to protect myself. I live on the forest floor. I eat dead leaves, and sometimes I eat animal scat (that’s a word for “poop”!). Harvester ants may catch me, kill me, and carry me down into their burrow. The ants may leave pieces of my white shell near their mound. Other small animals may eat me, too.



Rio Manso



I am the biggest frog in North America. I didn't always live in the Rio Grande Valley. I was brought here because my legs are so good to eat. I live in still waters of marshes or ponds where native frogs once ruled. I eat insects and any animal small enough for me to swallow, including ducklings. I need two summers to grow from an egg to a tadpole and on to a full-grown frog.

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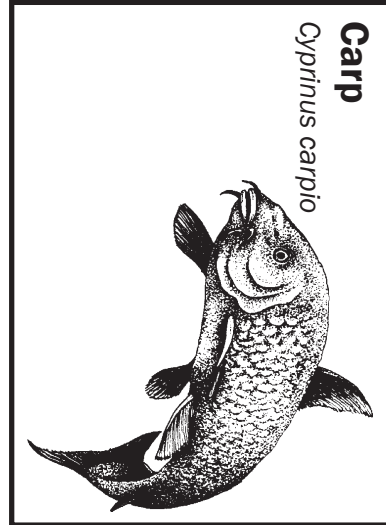
Look for me in warm, shallow water with many plants. I am 2 inches (5 centimeters) long and my mate is only 1 inch (2.5 centimeters). I am native in the lower Rio Grande but was introduced to the Middle Rio Grande because I eat mosquito larvae. My babies are born alive. I also eat other insect larvae, algae, crustaceans, and fish fry (baby fish). Because I eat fish fry, I sometimes kill off the fish that were in the streams and rivers before I came.

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Rio Manso

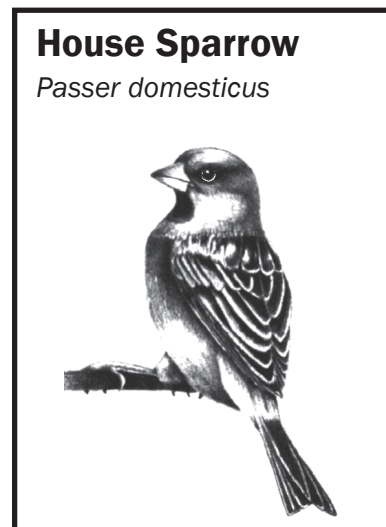
I am a fish that people in the United States do not usually eat. I came to New Mexico in 1883. I enjoy quiet, warm water but I can live in almost any kind of water. I often change the habitat by uprooting plants, making the water muddy, and eating the eggs of other fish. I spoil the habitat for native fish. I have barbels that look like whiskers. Some people think I am a pest.

I am a fish that people here do not usually eat. I enjoy quiet, warm water but I can live in almost any kind of water. I often change the habitat by pulling plants, making the water muddy and eating the eggs of other fish. I spoil the habitat for native fish. It looks like I have whiskers. Some people think I am a pest.



I am a small brown bird with a short, cone-shaped bill. My European relatives were brought to New York in 1850 and by 1940 were in the Rio Grande Valley. I have successfully colonized here because I strongly claim cavities for my nests very early in the year, before other birds arrive. I am common around houses and buildings but not very common in the bosque itself. I eat food on the ground, mostly insects, worms, garbage and seeds.

I am a small brown bird with a short, cone-shaped bill. I came from far away but have been very successful in the Rio Grande valley—just look how many of us there are! I build my nest in places very early in the year, before other birds arrive. I am common around houses and other buildings. I eat food on the ground, mostly insects, worms, garbage, and seeds.



Rio Manso

European Starling

Sturnus vulgaris



In the fall my black feathers are tipped with white and tan, but in the breeding season my plumage is iridescent black. I have a stocky body and a short, square tail. I can make lots of different sounds and imitate the songs of other species. I eat insects and other invertebrates, fruits and seeds. My ancestors came from Europe, but people took some of them to New York in 1890-91. Soon we spread across the U.S. We can live in many places. We nest in holes and often out-compete native species for nesting sites because we are aggressive and there are many of us.

In the fall my black feathers are tipped with white and tan. They show many colors in the breeding season. I have a stocky body and a short, square tail. I eat insects, fruits and seeds. My kind originally came from Europe. We like many types of habitats. We nest in holes. We take many of the nesting sites so native species can't use them. We often hang out in large flocks.

House Mouse

Mus musculus



I have gray-brown fur, top and bottom. My scaly tail has little hair on it. My ancestors probably arrived in North America with the first colonists. I do well in areas near humans. I move inside buildings when it gets cold. I usually have four or five young in a litter and they, in turn, can have young six weeks later. I have several litters a year. I eat vegetable matter and bugs.

I have gray-brown fur, top and bottom. My scaly tail has little hair on it. I like to live near humans. I move inside buildings when it gets cold. I usually have four or five young in a litter. They can have young when they are only six weeks old. I eat vegetable stuff and bugs.

Rio Manso

I should be a pet, but I am wild. Since I was abandoned by humans I try to survive on my own. I find lizards and mice to eat. I usually find the native mice are slow and easy to catch. Birds like ducks and quail that nest on the ground can also provide a good meal. I have become afraid of humans so I roam at night looking for food.

I should be a pet, but I am wild. Since humans left me here alone, I try to survive on my own. I find lizards and mice to eat. The native mice are slow and rather easy to catch. Birds that nest on the ground also provide a good meal. I am afraid of humans so I roam at night looking for food.

