

Name:

Period:

## Ecological Relationships Worksheet

READ THE FOLLOWING SHORT STORY ABOUT THE WEBER RIVER ECOSYSTEM. AT THE BOTTOM OF THE WORKSHEET, LIST AS MANY RELATIONSHIPS (AT LEAST 10) AS YOU CAN FIND IN THE STORY.

**RELATIONSHIPS TO USE:** PREDATOR/PREY, CONSUMER/PRODUCER, MUTUALISM, COMMENSALISM, PARASITISM.

IT IS A NICE SUMMER DAY ON THE WEBER RIVER. AS YOU ARE HIKING UP THE RIVER BOTTOM YOU NOTICE A SMALL MULE DEER HERD GRAZING ON GRASSES ALONG THE EDGE OF THE RIVER AND A BEAVER EATING THE BARK OF A COTTONWOOD TREE. THE BEAVER ALSO SEEMS TO BE USING SOME BRANCHES FROM A NEARBY TREE TO BUILD A HOUSE WITH AN UNDERWATER ENTRANCE WHERE IT CAN RAISE ITS YOUNG. AN ADULT *DERMACENTOR ANDERSONI*, A PARASITIC TROUBLE MAKER HAS SPENT THE WINTER BURIED IN THE PLANT MATTER AT THE BASE OF A MOUNTAIN SAGE, HAD EMERGED AND WAS CRAWLING UP THE STEM. UPON CLOSER INSPECTION, YOU CAN SEE THAT THERE WERE SOME VERY TINY EGGS ON THE STEM OF THE SAGE. SOME OF THESE EGGS WHICH HAD BEEN LAID BY ANOTHER *DERMACENTOR ANDERSONI* HAD ALREADY HATCHED AND THE TINY LARVAE APPEARED TO BE FEEDING ON A WARM BLOODED HOST. AS YOU WATCH THE WONDERS OF NATURE UNFOLD BEFORE YOUR EYES, YOU NOTICE THAT A SPIDER HAS BUILT A WEB BETWEEN A SAGEBRUSH PLANT AND A SMALL WILLOW. THERE IS A SMALL MOTH AND A COUPLE MOSQUITOES THAT HAD ALREADY BEEN CAPTURED IN THE WEB AND THE SPIDER WAS BUSY EATING THE MOTH. A LADYBUG HAD ALSO FOUND THE SAGEBRUSH PLANT AND IT WAS EATING THE *DERMACENTOR ANDERSONI* LARVAE WHEN A MOUNTAIN BLUE BIRD FLEW IN, GRABBED THE LADYBUG, AND FLEW TO A NEARBY GROUP OF TREES WHERE IT'S NEST WAS LOCATED. THE MOUNTAIN BLUE BIRD HAD BUILT A NEST OF SEDGE AND GRASS LEAVES THAT WERE WOVEN AROUND THE TREE BRANCHES. THE MOUNTAIN BLUE BIRD FED THE LADYBUG TO ONE OF THE BABY BIRDS IN THE NEST. MEANWHILE, A RATTLESNAKE WAS SITTING IN THE SUN ON TOP OF A LARGE ROCK NEAR THE WATER. A SMALL RODENT PASSED BY AND THE RATTLE SNAKE QUICKLY STRUCK AND INJECTED ITS VENOM INTO THE SMALL RODENT. THE RODENT QUICKLY TRANSPIRED AND THE SNAKE BEGAN TO EAT IT. WHILE ALL THIS WAS HAPPENING, YOU NOTICE A BIT OF MOVEMENT COMING FROM THE RIVER. A CUTTHROAT TROUT SOON SURFACES TO FEED ON A STONE FLY THAT WAS FLOATING ON TOP OF THE WATER. AS YOU LOOK OVER TO A NEARBY FIELD, YOU NOTICE THAT THERE ARE SEVERAL DIFFERENT SPECIES OF BIRDS WHICH APPEAR TO BE FEEDING ON INSECTS AMID CATTLE. UPON CLOSER OBSERVATION IT BECOMES APPARENT TO YOU THAT AS THE CATTLE GRAZE AND MOVE ABOUT THROUGH THE FIELD, THEY STIR UP THE INSECTS AND THE BIRDS ARE ON THE GROUND EATING THEM. ON YOUR HIKE OUT, YOU STUMBLE UPON A SWARM OF MOSQUITOES. THEY ARE RELENTLESS AND START BITING YOU. NO MATTER WHAT YOU DO YOU JUST CAN'T SEEM TO GET AWAY FROM THEM. PRETTY SOON YOU ARE ITCHING LIKE CRAZY AND HAVE LITTLE RED BITES ALL OVER YOUR ARMS, LEGS, AND FACE.

**ASSIGNMENT:  
DEFINE THE RELATIONSHIPS LISTED BELOW:**

**PREDATOR/PREY  
HERBIVORY  
MUTUALISM  
COMMENSUALISM  
PARASITISM  
COMPETITION**

**MAKE A LIST (AT LEAST 10) OF THE RELATIONSHIPS YOU CAN FIND IN THIS STORY.**

**CREATE A STORY OF YOUR OWN THAT INCLUDES A TOTAL OF 10 ECOLOGICAL RELATIONSHIPS. PLEASE REMEMBER TO TELL ME WHAT THE RELATIONSHIP IS AND DON'T FORGET TO UNDERLINE THE RELATIONSHIPS AS THEY OCCUR THROUGHOUT YOUR STORY.**