

Two activities were developed to help students become familiar with various new words and vocabulary: Wetlands Word Search and Two Dozen Wetland Words.

## I. Wetland Word Search

A wetland word search was also developed to support students becoming familiar with the vocabulary. Wetland Word Search answer is the Secret Message: Wetlands are fragile ecosystems.

## II. Instructions for student worksheet, Two Dozen Wetlands Words

Have students work alone or in pairs and find the meaning for two words. Review each definition with the whole class. Test them by playing a version of *Jeopardy*; call out the definition and have students respond in the form of a question.

## Terms and Definitions

Before you get started teaching about wetlands, there are a few key “wetland words” you should know. The words with an asterisk\* below are found on the *Two Dozen Wetland Words* student worksheet.

**Amphibian** – A cold-blooded, smooth-skinned vertebrate of the class *Amphibia*, such as a frog, toad or salamander, that characteristically hatches as an aquatic larva with gills. The larva then transforms into an adult having air-breathing lungs; an animal capable of living both on land and in water.

**Aquatic Zone\*** – The area below the high water mark. In this area the water levels change both seasonally and annually. Within this zone, three distinctive types of plants grow – emergent (out of water), submergent (below water) and floating.

**Bait Station** – A structure set up by wildlife managers close to both a farmer’s field and the wetland area. Grain is placed in the structure in an attempt to lure the ducks away from the farmer’s crops.

**Bog** – a type of wetland that received most of its water supply from rainfall; found in northern Alberta. Common vegetation consists mostly of sphagnum mosses, black spruce or tamarack, sundew, pitcher plant cranberry, sedges and thick layers of accumulated peat.

**Consumer** – A heterotrophic organism (an organism that cannot synthesize its own food and is dependent on complex organic substances for nutrition) that ingests other organisms or organic matter in a food chain.

**Drought** – An extended period of abnormally dry weather that causes water shortages and crop damage. A drought starts when total rainfall is well below average for several months.

**Ecosystem** – The complex interactions which take place between the abiotic (non-living) elements such as water, soil and air and biotic (living) elements such as plants and animals within a particular environment, such as a wetland.

**Emergent Plants** – Vegetation with roots in water, but grows well above the surface, and most often close to the water's edge or in shallower areas. Common plants include: reed grass, common cattail, bulrush, marsh marigold, small-flowered buttercup and giant bur-reed.

**Fen\*** – A wetland that receives most of its water supply from groundwater. It supports vegetation such as sedges, grasses, shrubs or trees. Fens contain more nutrients than bogs.

**Floating Plants** – Plants whose leaves float at the surface and roots hang down. Often, they have pockets of air that help them to stay afloat, such as bladderwort. Common plants include: common duckweed, star duckweed, small yellow pond lily, floating leaf pondweed and water smartweed.

**Flood** - An overflowing of water onto land that is normally dry.

**Food Web\*** – A community of organisms where there are several inter-related food chains.

**Groundwater\*** – Water that seeps through the ground and accumulates in underground water sources called aquifers.

**Habitat\*** – A natural area that has favourable biotic (living) and abiotic (non-living) elements to support the growth of plants and animals. The four main elements that living things need to survive are: food, water, shelter and space.

**Hydric Soils** – Soils that are formed under saturated and anaerobic (lacking oxygen) conditions. Can you guess where they might be found? That's right, in a wetland!

**Invertebrate** – Any animal that lacks a vertebral column or backbone. Approximately 95 per cent of all the earth's animal species are invertebrates; of these the vast majority is insects and other arthropods.

**Marsh\*** - Marshes are frequently or continually flooded wetlands characterized by emergent herbaceous vegetation adapted to saturated soil conditions, changing water flows, and mineral soils. Marshes contain shallow water varying from 15 to 90 cm in depth. Expansive stretches of open water are uncommon and islands of vegetation are often present. Marshes are the most common wetland type in North America.

**Peat** – A dark-brown or black, partially carbonized vegetable matter produced by the partial decomposition and disintegration of mosses, sedges, trees, and other plants that grow in marshes and other wet places. Forest-type peat, when buried and subjected to geological influences of pressure and heat, is the natural forerunner of most coal. Moor peat is formed in relatively elevated, poorly drained moss-covered areas, as in parts of Northern Europe.

**Pollution** – The contamination of soil, water, or the atmosphere by the discharge of harmful substances.

**Predator** – An organism that lives by preying on other organisms.

**Prey** – An animal hunted or caught for food; quarry.

**Producer** – A photosynthetic green plant or chemosynthetic bacterium, constituting the first trophic level in a food chain; an autotrophic organism (an organism capable of synthesizing its own food from inorganic substances, using light or chemical energy)

**Recharge** – the process where precipitation (rain, snow) or water from a neighboring wetland seeps into the ground to replenish groundwater (aquifer.)

**Riparian Zone\*** – Moist, green, lush areas that borders lakes, wetlands, rivers, or streams. Plants that live in the riparian zone include sedges, grasses and willows, and poplars as you move to higher ground. This vegetative "edge" is important for slowing water flow, reducing erosion and trapping and filtering sediment and impurities before it reaches the water. See forbs, rushes and sedges for examples of riparian plants.

**Submergent Plants** – plants that are completely underwater. Their stems are floppy because the water holds them up. Always underwater, they change position with the water level. Common plants include: coontail, northern watermilfoil, Richardson pondweed, whitestem pondweed and white water buttercup.

**Surface Water** - is water collecting on the ground or in a stream, river, lake, wetland, or ocean; it is related to water collecting as groundwater or atmospheric water. Land surface water is the largest source of fresh water.

**Swamp** – Wetlands that are flooded by standing or slow-moving water. The vegetation is a dense cover of trees and shrubs. Swamps are not common in Alberta. Many people incorrectly refer to wetlands as swamps.

**Uplands\*** - The drier areas of land beyond the riparian zone where the water table is typically lower. The plants growing in this area are usually conifers, grasses and shrubs that require drier soils for growth. Some examples of upland species include: common wild rose, pin cherry, shrubby cinquefoil, green alder, balsam poplar, white spruce and foxtail barley.

**Water Table** – The level below which the ground is completely saturated with water. Also called *water level*.

**Waterfowl** - Are water birds, especially swimming birds. Swimming game birds, such as ducks and geese are considered waterfowl as a group.

**Watershed\*** – A watershed is an area of land that catches precipitation and drains it to a common point such as a river, lake, stream or wetland. Watersheds can range in size from a few hectares to thousands of square kilometres. Sometimes, watersheds are called basins, drainage basins or river basins. Large watersheds, or river basins, are usually made up of smaller sub-basins. For example, in Alberta the South Saskatchewan River Basin includes the Bow, Red Deer, Oldman and South Saskatchewan River sub-basins.

Name: \_\_\_\_\_

## Two Dozen Wetland Words

What do these wetland words mean? Use resources like a dictionary, the internet and the back of the *Wetlands: Webbed Feet Not Required* poster to write down what they mean.

Amphibian –

Aquatic Zone –

Consumer –

Decomposer –

Drought –

Fen –

Flood –

Food Web –

Ground Water –

Habitat –

Invertebrate –

Marsh –

Peat –

Pollution –

Predator –

Prey –

Producer –

Recharge –

Riparian Zone –

Surface Water –

Upland –

Water Table –

Waterfowl –

Watershed –

# Wetland Word Search



Find all the words in the word search and discover a secret message. Circle the letters of the words when you find them in the word search and cross off the word from the word list. Look carefully, the words go in all directions.

D	E	H	S	R	E	T	A	W	T	H	G	U	O	R	D
W	E	F	T	T	A	T	I	B	A	H	T	L	A	D	N
D	S	R	E	E	D	S	C	I	T	A	U	Q	A	O	S
N	K	E	W	N	A	M	P	H	I	B	I	A	N	O	I
O	C	T	A	R	O	T	A	D	E	R	P	B	R	L	N
I	U	A	C	O	N	S	U	M	E	R	E	W	O	F	V
T	D	W	W	F	R	A	G	M	A	R	S	H	I	G	E
U	E	E	A	L	R	E	C	H	A	R	G	E	E	E	R
L	C	C	T	G	R	O	U	N	D	W	A	T	E	R	T
L	O	A	E	N	O	Z	N	A	I	R	A	P	I	R	E
O	M	F	R	E	C	O	S	Y	S	T	E	M	C	O	B
P	P	R	T	S	U	B	M	E	R	G	E	N	T	S	R
P	O	U	A	D	Y	Y	L	F	N	O	G	A	R	D	A
E	S	S	B	R	S	W	A	T	E	R	F	O	W	L	T
A	E	T	L	I	E	S	B	E	W	D	O	O	F	M	E
T	R	S	E	B	Y	E	R	P	R	O	D	U	C	E	R

### Word List

- |              |               |
|--------------|---------------|
| Amphibian    | Marsh         |
| Aquatic      | Peat          |
| Birds        | Pollution     |
| Bog          | Predator      |
| Consumer     | Prey          |
| Decomposer   | Producer      |
| Dragonfly    | Reeds         |
| Drought      | Recharge      |
| Ducks        | Riparian zone |
| Ecosystem    | Submergent    |
| Fen          | Surface Water |
| Flood        | Watertable    |
| Food webs    | Waterfowl     |
| Groundwater  | Watershed     |
| Habitat      | Wet           |
| Invertebrate |               |



Fill in the blanks with the remaining letters. Go in order beginning in the top left hand corner.

Secret Message: \_\_\_\_\_

\_\_\_\_\_