

	KEY TERMS:	biomass deforestation	renewable ecology	forestry
	KING COLUMN: Comp clude definitions and	plete this section <u>duri</u> key terms.	ng the	CUE COLUMN: Complete this section <u>after</u> the video.
What pe make up		biomass on Earth do	trees	How can trees be 'managed?'
	o broad camps are pe controversy?	ople divided into in re	egards to	
What is t	he second misconce	ption about forestry?		Why is the planting of trees so important?

DISCUSSION & REVIEW QUESTIONS:

- At the beginning of the video, Dr. Moore invokes our responsibility to the environment by describing us as 'stewards of the earth.' What exactly does he mean by that? Do you feel a responsibility to be a 'steward of the earth?' Why or why not?
- Dr. Moore explains that trees, "...have become very controversial," and that a group on one side of the issue, "...prefers to see forests off-limits to commercial use." Considering that Dr. Moore, a highly educated and experienced ecologist, states, "...if we do it right, we can use our trees and enjoy them, too," why do you think that a controversy exists at all? What factors contribute to the opposition of forestry?
- When explaining the framework for and a likely contributor to the controversy, Dr. Moore informs us that one, "...misconception is that forestry, as practiced by the forest industry, is responsible for deforestation," but that, "...it's not the harvesting of trees that causes deforestation. Deforestation is the result of harvesting and then not replanting a forest, or not letting it grow back naturally..." What do you think is the basis for this misconception? Why do so many opponents of the logging industry hold this misconception, even though if they bothered to gather the facts they would find out that companies such as, "...Boise Cascade [are] just as much in the business of planting trees as [they are] in harvesting them," and thus are engaged in good forestry, not deforestation?
- Dr. Moore rightly points out that many environmentalists, "...support cutting fewer trees, as if our forests are disappearing. But they're not. There is the same area of forest in the U.S. and Canada today as there was 100 years ago. If anything, it's growing... But the professional environmentalists... behave as if every tree should be protected and that the products they yield are unnecessary." Why do you think that these environmentalists take such an extreme position? How does their ignorance of the ecological science and facts contribute to their position and actions?
- At the end of the video, Dr. Moore states that, "The correct position, from a purely environmental perspective, is to grow more trees, the world's most abundant renewable resource, and use more wood. We can do both." Do you agree with Dr. Moore's position? Why or why not?

EXTEND THE LEARNING:

CASE STUDY: Tree Spiking

INSTRUCTIONS: Read the articles "What is Tree Spiking?" and "A new weapon in B.C.'s war of the woods - Concrete tree spikes found in Kooteneys," then answer the questions that follow.

- What is tree spiking? Why is it so dangerous? Why are some protesters using concrete spikes instead of metal ones? Do you think that this is a legitimate form of protest? Why or why not?
- In the world of bioethics, people generally must choose to side with one of two groups- those who value the welfare of humans more versus those who value the welfare of other living things more than humans. Which group do you think the 'spikers' fall into? Do you think that claiming to value life, such as life in the forest, yet booby-trapping trees so that loggers or mill workers could get hurt or even killed is a consistent viewpoint? Why or why not?
- How effective is tree spiking? Do you think that tree spiking helps or harms the environmentalist movement? Explain.



1. What is our most abundant renewable energy resource?

- a. Solar power
- b. Wind power
- c. Hydroelectric energy
- d. None of the above.

2. What makes up about 90 percent of all the living biomass on Earth?

- a. Corn
- b. Manure
- c. Trash
- d. Trees

3. What is deforestation?

- a. Harvesting a forest.
- b. Harvesting and then not replanting a forest.
- c. Selling trees as lumber.
- d. Replanting a harvested forest.

4. A landscape of pasture with sheep peacefully grazing or a wheat-field waving in the wind are examples of what?

- a. Agriculture
- b. Harvesting
- c. Deforestation
- d. Forestry
- 5. There is the same area of forest in the U.S. and Canada today as there was 100 years ago.
 - a. True
 - b. False



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http://www.wisegeek.com/what-is-tree-spiking.htm

wise GEEK

What is Tree Spiking?



Tree spiking is designed to make logging more difficult.

Written By: Mary McMahon

Edited By: Bronwyn Harris

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Tree spiking is a type of <u>ecotage</u> which is intended to prevent loggers from taking trees. In the United States, it is a federal felony, as of 1988. While spiking is still practiced, it is highly controversial among many environmental activists, with some organizations even split in opinion from within. Many opponents of tree spiking argue that the practice is extremely dangerous and potentially highly alienating, while supporters argue that it makes logging much more difficult, thereby forming an effective method of protest.

When a tree is spiked, someone hammers a piece of hard material such as metal or ceramic into the tree. The tree is not damaged by this activity, as plenty of hard objects lodge in trees naturally, and trees are able to adapt their growth patterns to scar over the affected area. However, when a logger attempts to cut a tree down, the tree spike will catch on the saw blade, causing it to break or shatter. Even if a spiked tree is successfully felled, it can still wreak havoc at a mill, as a spiked tree did in 1987 when it caused a sawblade to shatter, almost killing a mill worker.

Some tree spikers say that it should be done as ethically as possible. Ideally, the spike should be located well above saw height, so that loggers are not in danger. The spikes should be made of brass or another non-iron metal, so that the tree itself won't be too damaged. Spiked trees should also be clearly marked, and lumber companies should be notified when trees on a timber harvest plan have been spiked. When done in an ethical fashion, tree spiking is intended to ensure that logging is not profitable, thus leading timber companies to leave stands of trees alone.

More radical activists, however, do not practice tree spiking ethically. They argue that the environment is worth more than the potential loss of a human life. The practice certainly has a long history; incidents of spiking date back to the late 1800s, although it was not popularized until the 1980s. Dave Forman, co-founder of Earth First!, popularized the practice in a book called *Ecodefense*, arguing that it should be part of the arsenal of committed environmental activists.

As tree spiking became more widespread in the late 1980s, especially in Northern California and Southern Oregon, some activists became concerned about the practice. Several documented injuries indicated that tree spiking had the potential to be deadly, and many environmentalists were concerned that spiking was giving their movement a bad name. As a result, many groups condemned the practice, arguing that there were safe and more effective ways to put a stop to logging. Within Earth First!, members were split on the issue, and continue to be to this day.

http://www.citizenreviewonline.org/june_2001/new_weapon_in_british_columbias_war_ of_the_woods.htm

A new weapon in B.C.'s war of the woods -Concrete tree spikes found in Kooteneys

Glenn Bohn Vancouver Sun

NELSON -- A dangerous new weapon has emerged in the fight to stop logging in the forests of the West Kootenays. Environmental activists are using tree spikes made of concrete instead of metal to evade detection and create a deadly hazard in the woods.

Logger Jeff Mattes knew something was wrong when he recently saw a spiral wood shaving on the ground beside a felled log -- the only visible hint that anything was amiss.

He put his chainsaw aside and began searching for a new weapon in B.C.'s war of the woods -- a tubeshaped chunk of concrete slipped into a hole drilled into the tree trunk.

Mattes and other loggers looked for 45 minutes before finding the first concrete plug, because someone had carefully glued a chunk of bark on top of the drilled hole to hide the spike in the wood. The concrete was set in a 10-centimetre-long section of plastic or PVC-type piping. And unlike the metal spikes formerly advocated by Earth First! and other advocates of "ecotage" -- or ecological sabotage of forestry operations - the concrete and plastic would not have been found with metal detectors.

That day -- May 10 -- they found a dozen such spikes in felled timber and standing trees.

Now police in Nelson are trying to find out who planted the deadly devices in the forest. The concrete plugs are meant to splinter the metal blade of a logger's chain saw or break huge saws used in mills, wrecking machinery and sending broken metal and concrete shrapnel in every direction.

RCMP Constable Don Brunner said police in this region have seen metal spikes in trees before, but concrete spikes are a new tactic.

"This is a potentially lethal form of protest," Brunner said. "This is going beyond a statement or a protest. They're endangering people's lives here, so we're taking it very seriously."

So far, the police investigation has not led to arrests or criminal charges. Mattes said the concrete spikes had all been placed in trees at eye level, or the level where a chain saw would be used to take down the tree. Mattes, 48, a logger for about 30 years, said he's used to the occupational hazards of B.C.'s most dangerous job, but shouldn't have to face a deliberately-created hazard by someone who disagrees with a government-approved logging operation. "They were pretty crafty in the way they hid what they were doing," he said in an interview from his home in Kaslo.

"It kind of messes with your mind."

[THAT'S WHY THEY CALL IT "TERROR"-ISM]

The spiked trees were found on provincial Crown land near Trozzo Creek in the Slocan Valley, about halfway between the small towns of Slocan and Winlaw, northwest of Nelson.

It's an region that has seen many illegal logging road blockades and protests in the last decade, because the B.C. forests ministry allows logging in forests that some residents say shouldn't be clearcut because they are the community watersheds that provide safe drinking water.

Colleen McCrory, a prominent Kootenay-born conservationist, said she has no idea who spiked the trees. McCrory, who successfully campaigned for the creation of nearby Valhalla provincial park and later led a national campaign that branded B.C. the "Brazil of the North" for its allegedly unsustainable and harmful logging practices, also told the local Nelson Daily News that tree spiking doesn't help conservation campaigns.

McCrory, who received more than 4,000 votes as a B.C. Green party candidate in last week's provincial election, said she was "very pained to see what happened, but I understand there is a level of frustration and the situation is going to get worse."

A spokesman for Slocan Forest Products, which hired Mattes to supervise a contract logging operation near Trozzo Creek, said the concrete spikes could have killed someone.

"If a faller had been standing in the wrong place when the blade hit the spike, it could have come out at him like a bullet," said Alex Ferguson, the company's woodlands manager.

Ferguson said no group has claimed responsibility for the spikes and he doesn't know who planted them, but the company videotapes protesters who come into the area, and the videotapes are now with police.

He pointed to the region's history when asked to explain why logging in the Slocan Valley is controversial, noting that area was settled in the 1970s by U.S. draft-dodgers and other back-to-the-land advocates. Nelson, and the surrounding area, are also a magnet for urban youths who want a cleaner, more natural environment.

Ferguson said "transients" are also participating in logging protests. "It's one thing to be here for 20 years and complain," he said. "It's another thing to be here for a few weeks and complain." According to Ferguson, mainstream environmental groups that are campaigning against logging are quite embarrassed by the discovery of concrete spikes.

Mattes said he respects the people who don't agree with forestry practices and considers some of them his friends. Anyone who puts spikes into trees isn't helping that environmental cause, he said.

"This kind of cuts their legs off," the logger said.