THE STRUGGLE TO PRESERVE THE BRAZILIAN RAIN FOREST

A lesson plan for high school and college students

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The Struggle to Preserve the Brazilian Rain Forest

Level and Subject

Type of Lesson

Materials

Methodology

Intended Learning Outcomes

Purpose

Data

- **Need for the Rain Forests**
- **Causes of Destruction**
- **Ways to Preserve the Rain Forests**
- **Forest Facts**
- **Countries with sizeable areas of tropical rainforest**
- **Natural resources**

Discussion Questions

Evaluation Activities

Bibliography

Level and Subject:

High school social studies, biology, and Spanish classes
College humanities, biology, and Spanish classes

Type of lesson:

This lesson is intended to teach about the fauna of the Amazon region, the need to preserve the rain forests, and how destruction is greatly endangering this natural resource.

Materials needed for class presenation:

Library books with colored pictures
Maps to locate rain forests (one of the world, one of South America)
Chart to fill in specific information on the wildlife
Bibliography of resource information
Samples of elegant wood products (optional)

Method to be used:

First of all, it would be a good idea to collaborate with other teachers in biology, social studies, and perhaps Spanish to see how this lesson could benefit both classes and allow for further reinforcement.

At the high school level, students will undertake some research on the particular wildlife of the Brazilian Rain Forest. Those involved will do mini-presentations to the class using color pictures and providing information on distinguishing characteristics of each of the species. Students will classify all wildlife by genre and learn to identify the animals when they see them. Students will have class discussions on key questions and issues of preservation.

On the college level, there will be a different approach. There will be a lecture on the Brazilian Rain Forest with colored pictures of wildlife as props. An inner-active discussion on what a rain forest is, how it benefits mankind, and how destruction endangers the world will follow the lecture. In my Latin American Humanities class, there are students from Costa Rica, Puerto Rico, Brazil. Colombia, and Venezuela, all of whom have been in some affected by the rain forests in their countries. They will share their own experiences and answer questions of their classmates.

Evaluation:

Students will be evaluated on their presentations, discussion participation, the wildlife chart and matching exercise, and a test. Copies of each are attached.

Discussion issues:

Discuss some important uses of the rain forests.

Discuss some of the major problems that rain forests, especially the one along the Amazon River, are undergoing as we approach the Twenty-first Century.

Discuss five ways that manking can preseve these reain forests for future generations to benefit and enjoy the marvels contain within their coundaries.

Which animal did you like best from the collection that you saw?

Discuss the makeup of the ecosystem and what happens if the food chain breaks down.

Discuss the rain forest as a way of life for indigenous tribes and how its destruction will affect their lifestyle.

Describe what you envision as the world of the future is this mass destruction of the rain forest across the world continue.

INTENDED LEARNING OUTCOMES

* Be able to locate rain forests across the world

* Locate the Amazon region on a map of South America

* Have a greater appreciation for the valuable resources in the rain forest

* Respect the plants and animals and not lok at them as a decoration in the house or a "cool" piece of clothing

* Identify the various life forms in their natural habitat

* Recognize the mammals, fish, birds, and reptiles as herbivorous or carnivorous

* Practice care and protection of all living beings

* Identify problems and dangers to the rain forest

* Engage in activities and join organizations that preserve the rain forest

THE STRUGGLE TO PRESERVE THE BRAZILIAN RAIN FOREST

Mary Ellen Page

PURPOSE: Present a lecture and activities based on problems in the Brazilian Rain Forest and its effects on the country's ecosystem as well as on the rest of the world.

There is a tremendous need to preserve the rain forests around the world. They are a source of numerous benefits to mankind:

* A unique species of mammals, birds, fish, and reptiles live there and are readily available for scientists to study and to protect from destruction.

* Plant species provide food for mankind and animals in the surrounding areas for medicine to cure diseases, and for scientists to study in a "nature" laboratory setup.

* The plants and animals support each other in the delicate balance of the ecosystem. Animals eat seeds and through feces deposits, regurgitation, or carrying seeds in their fur or feathers, transport them from one area to another. This process can help plants reproduce, especially in new territory.

* Migrating birds depend on these forests for nesting and resting on their long journeys.

* Reforestation provides new plants for future generations.

* Dense vegetation provides a cooling effect as the earth is presently undergoing a global warming trend.

* The rain forests provide unique and beautiful lumber such as **teek, rosewood, and mahogany** prized for their elegance in furniture.

* The subsoil contains deposits of gold and precious stones, iron, nickel, tin, and many other kinds of ore. (Dwyer, xi)

* The non-indigenous people living and working in the Amazon are collaborating with the indigenous population to preserve their heritage, and the latter benefit financially as well. HOWEVER, government intervention causes stress and great distrust as officials come in and devastate the land.

* Retention of soil prevents mass flooding and less soil erosion.

* Rain forests provide a pool of new useful plant species where scienteists can work in a "natural" laboratory.

* There is a readily abundant pool of genetic material useful in other ways.

* The rain forests are a home and food source of animals, and of hunting-gathering tribes.

* They are a matrix of evolution.

* They provide a source of knowledge.

* They should be the object of respect for creaton.

* Rain forests provide a medium for education and recreation.

(The last eight were taken from **The Tropical Rain Forest** by Marius Jacobs.)

There are many causes for the destruction of these rain forests:

* Climatic conditions destroy valuable land, vegetation, and living creatures. El Niño has wreaked havoc over the years with forest fires, floods, hurricanes, and mudslides, often causing irreparable damage. In March 1998 over 36 million hectares of Amazon territory burned as a result of drought conditions caused by el Niño. This has created a major ecological travesty. (Dr. Charles Wood)

* A break in the food chain would destroy the ecosystem since every level of existence is dependent on the one below it.

* Poachers come in and kill wildlife to steal the beautiful bird feathers and pelts, especially feline ones.

* A tremendous desire to modernize and industrialize leaves vast tracts of land leveled for modern highways and new housing and commercial development.

* Airline traffic routes leave vapor trails of chemicals dangerous to the fragile ecosystem.

* Gold miners who seek an easy extraction method leave mercury deposits in the water which greatly endanger the marine life inhabiting this area as well as to other animals who come to the water to drink.

* Many see cattle ranching as a way to improve their economical situation, and vast tracts of land have given way to large grazing areas.

* Deforestation is a violent process that appears to be in the number one spot of the government's list of many projects. It creates discord among the indigenous populations which are then relocated to unfamiliar territory as well as being subjected to a totally different lifestyle. All this in turn creates enormous social problems from which many never recover.

* Relocation of wildlife is equally traumatic and tragic, and many animals often die when they are not able to adapt to their new environment.

*As more and more people and machinery move into the region, there will be greater destruction to the land.

* The vegetation of the rain forest thrives on carbon dioxide that humans exhale. We, in turn, survive o the oxygen that plants generate. Destruction of this vital natural resource will endanger the oxygen levels on earth and affect our breathing, and perhaps our very existence.

* Dangerous chemicals used in fertilizers and pesticides have also had a debilitating effect on plant and animal life in the rain forest.

* Satellite photos in 1977 and again in 1985 have shown images of incredible deforestation. (Dr. Charles Wood)

* International politics greatly affects actions taken by the Brazilian government.

* Power lines cause death to primates that might attempt to swing from them.

* The pet trade sees many of these animals removed from their natural habitat and lifestyles, and they become dependent on humans for survival. If they were to be released into the wild after captivity, their survival rate would be minimal.

* Diseases exchanged during human and animal contact are many times fatal, thus causing the demise of many of these species that will either be on the endangered or extinct list.

* Because animals have been hunted so much, they are no longer living near the cities, but rather have retreated to the interior of the rain forest. Many people will never get to know these species.

* Brazil has traditionally been a nation whose leaders have been more interested in expanding the military rather than in preserving the land.

What can you do to alleviate the situation?

* Plant a tree and celebrate Arbor Day

* Recycle paper so that more trees will not be destroyed

* Reduce your demand for paper products; find substitutes

* Recycle grocery bags or purchase canvas ones to carry your purchases

* Write on both sides of a page; photocopy on both sides rather than on only one

* Request that companies remove your name from "junk mail" lists to save paper

* Buy products that have less packaging materials

* Use cloth diapers instead of disposables

* Use wood wisely; recycle it whenever possible

* Substitute other materials for wood

* Recycle scap wood for crafts and other uses

ENGLISH NAME	IDENTIFYING CHARACTERISTICS	GENRE	HERBIVOROUS CARNIVOROUS	HABITAT
AGUTI				
ARMADILLO				
CAPYBARA				
CROCODILE				
FROG				
JAGUAR				
MARGAY				
PECCARY				
PIRANHA				
WOOLLY MONKEY				

IDENTIFY THE FOLLOWING

AGUTI

ARMADILLO

CAPYBARA

CROCODILE

FROG

JAGUAR

MARGUEY

PECCARY

PIRANHA

WOOLLY MONKEY

TROPICAL RAINFORESTS lie in a huge belt, north and south of the Equator. Two hundred years ago, this belt stretched almost unbroken, like a vast carpet, across the lowlands and lower mountain slopes of Central and South America, Africa, South East Asia

Countries with sizeable areas of tropical rainforest

(44 of the total 70 countries with rainforest are listed. The other 26 have small patches or are small island groups)

ASIA
- Bangladesh
- India
- Sri Lanka
- Burma
- Cambodia
- Laos
- Thailand
- Vietnam
- Indonesia
- Kalimantan (Borneo)
- Malaysia
- Philippines
- Papua New Guinea

AFRICA
- Ghana
- Ivory Coast
- Liberia
- Nigeria
- Sierra Leone
- Cameroon
- Congo
- Gabon
- Zaire
- Kenya
- Madagascar
- Tanzania
- Uganda

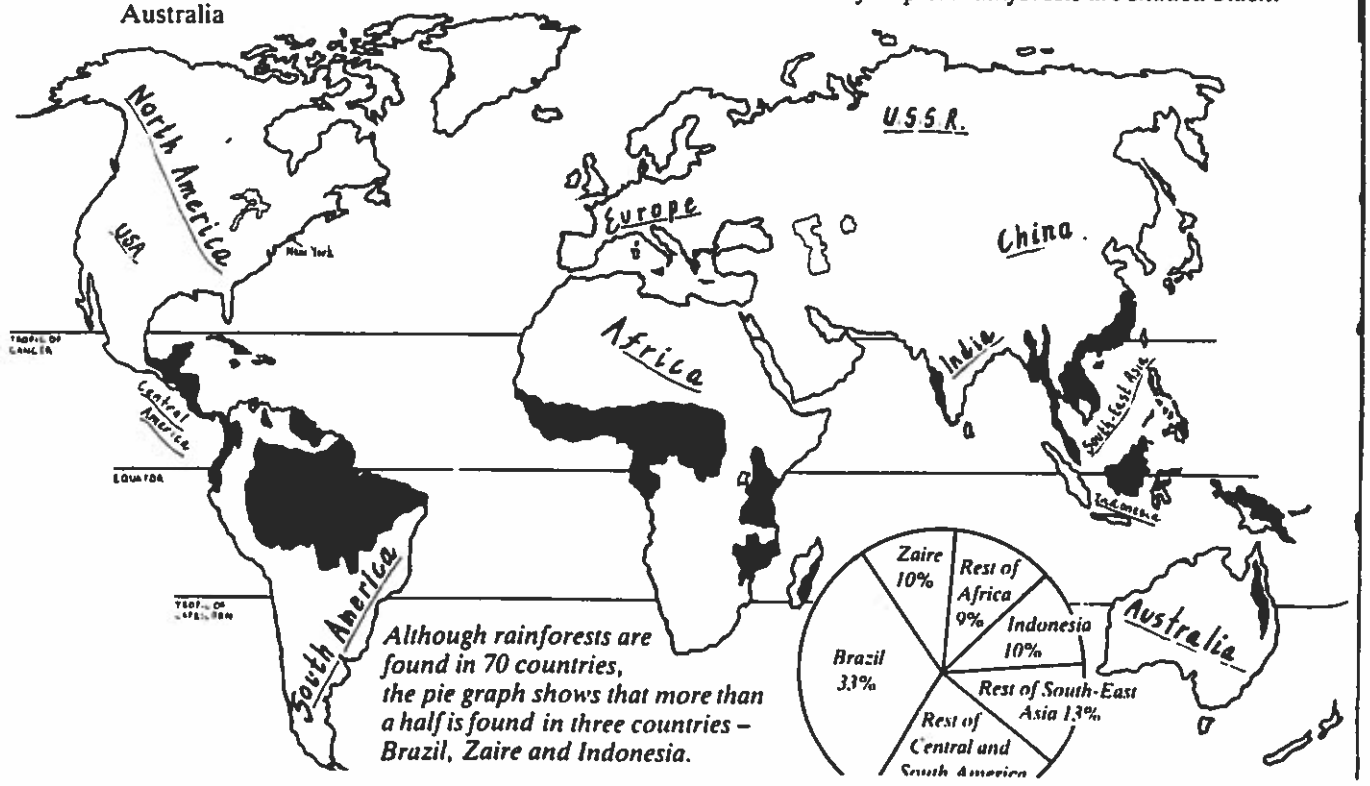
AUSTRALASIA
- Australia

NORTH AMERICA
- USA (Mangroves of Florida)

LATIN AMERICA
- Costa Rica
- El Salvador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama
- Bolivia
- Brazil
- Colombia
- Ecuador
- French Guiana
- Guyana
- Peru
- Surinam
- Venezuela

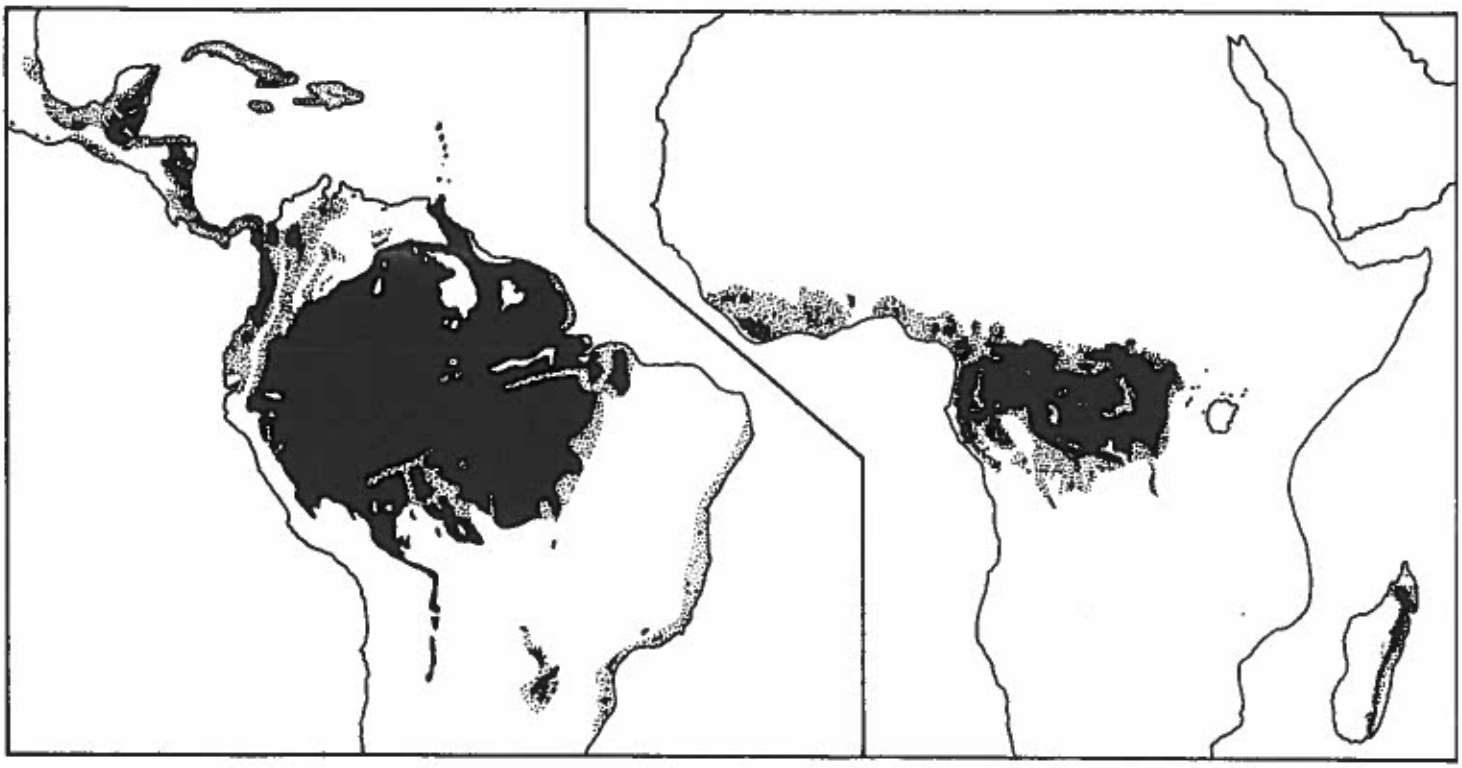
Can you find all these countries in an atlas?

TROPICAL FORESTS grow in the equatorial regions of the world between the Tropic of Cancer and the Tropic of Capricorn. They grow in areas which have a very high rainfall. An alternative name is, therefore, RAINFOREST. We really should call them TROPICAL RAINFOREST. On the map, the main areas of tropical rainforests are shaded black.

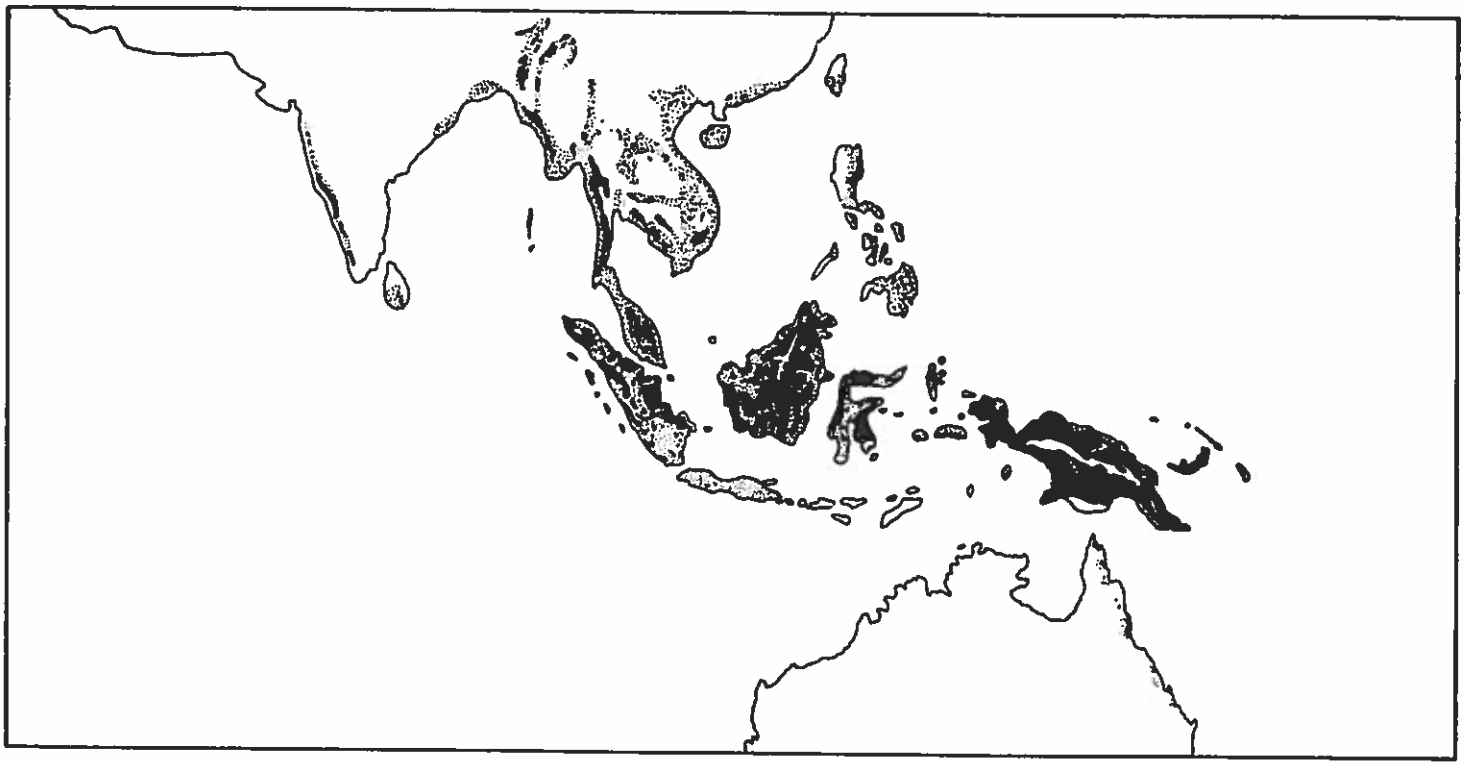


Although rainforests are found in 70 countries, the pie graph shows that more than a half is found in three countries – Brazil, Zaire and Indonesia.

CULTURES OF THE WORLD, BRAZIL
Christopher Richard

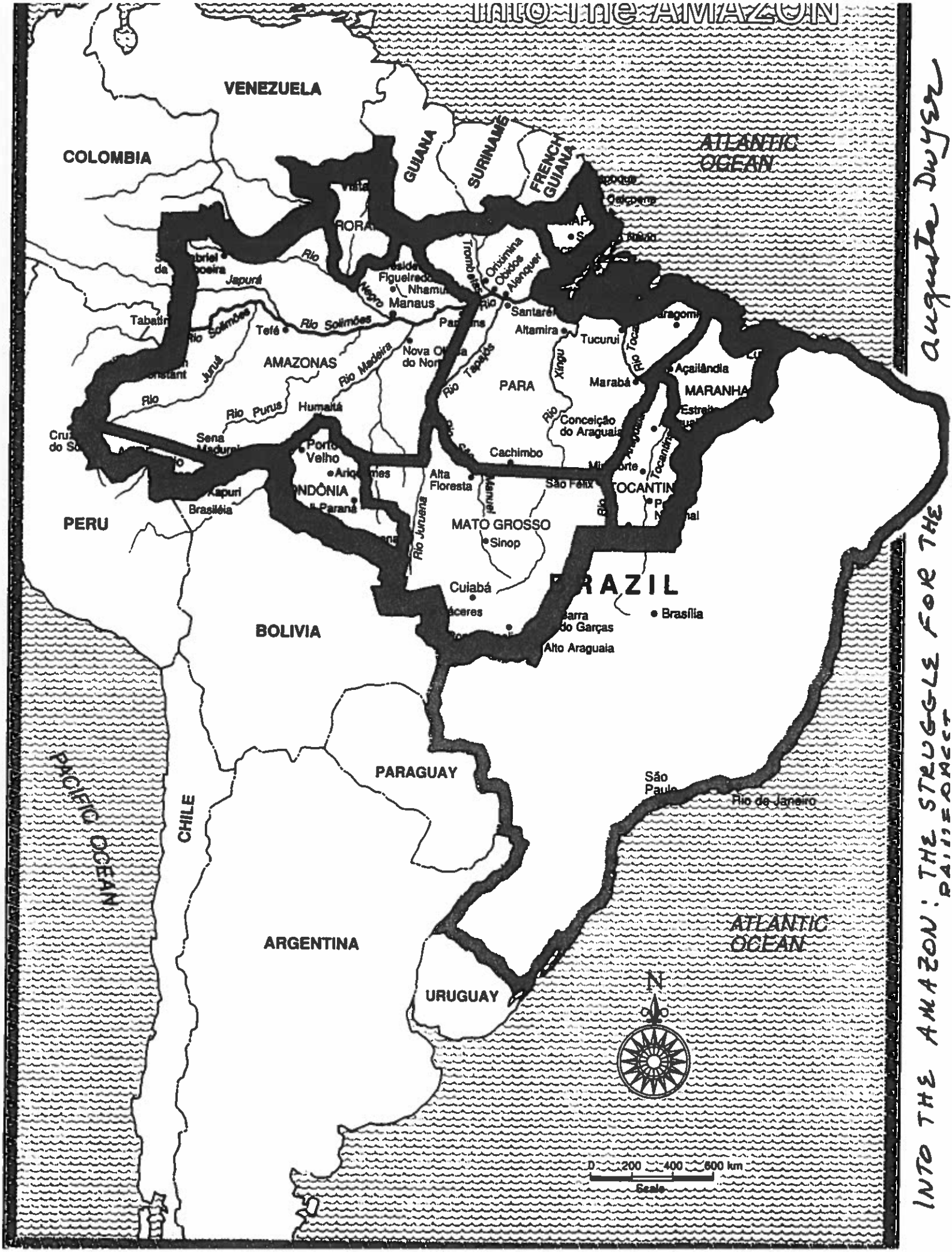


SAVING OUR ANCIENT FOREST
Seth Zuckerman



Originally covering 1.6 billion hectares, the world's tropical forests now grow on around 1.1 billion hectares. Present distribution is indicated in solid black; originally forested areas now deforested or degraded are stippled. Data courtesy of *Tropical Rainforests: A Disappearing Treasure*, Smithsonian Institution.


BRAZIL
International boundaries
State boundaries
VENEZUELA
COLOMBIA
GUYANA
SURINAM
FRENCH GUIANA
Bôa Vista
RORAIMA
AMAPÁ
Macapá
Equator
Negro
Amazon Network
Manaus
Solimões
Amazon
Highway
Belém
São Luís
Fortaleza
AMAZONAS
Trans-Amazon
Purús
Madeira
Tapajós
PARÁ
Xingu
MARANHÃO
CEARÁ
Teresina
RIO GRANDE DO NORTE
Natal
João Pessôa
PARAÍBA
Olinda
Recife
PERNAMBUCO
Tocantins
Parnaíba
PIAUÍ
ACRE
Rio Branco
Pôrto Velho
RONDÔNIA
Maceió
ALAGOAS
Aracajú
SERGIPE
BAHIA
Paraguaçu
Salvador
PERU
MATO GROSSO
Araguaia
GOIÁS
São Francisco
Brasília
DISTRITO FEDERAL
Cuiabá
Goiânia
Jequitinhonha
MINAS GERAIS
BOLIVIA
Paranaíba
Belo Horizonte
Ouro Prêto
Doce
Vitória
ESPIRITO SANTO
Paraíba
Tietê
SÃO PAULO
RIO DE JANEIRO
GUANABARA
See inset below
PARAGUAY
Paraná
São Paulo
PARANÁ
Curitiba
Paraguay
SANTA CATARINA
Florianópolis
CHILE
La Plata Network
Paraná
Uruguay
RIO GRANDE DO SUL
Pôrto Alegre
URUGUAY
Colônia do Sacramento
ATLANTIC OCEAN
ARGENTINA
0 200 400 600 Miles
Petrópolis
RIO DE JANEIRO
GUANABARA
Niterói
Rio de Janeiro
0 10 20 30 Miles
BRAZIL



INTO THE AMAZON: THE STRUGGLE FOR THE RAINFOREST

Augusta Dwyer

dent, Gus Speth, a leader in the national and international environmental movement for two momentous decades. His vision and encouragement have been invaluable.

Last, we want to thank Kathleen Courrier and Mohamed T. El-Ashry, the series editors of *WRI Guides to the Environment*. They helped conceptualize this book and forced us to do our best.

K.M. and L.T.

TREES OF LIFE: SAVING TROPICAL FORESTS AND THEIR BIOLOGICAL WEALTH

Kenton Miller +
Laura Tangley

FOREST FACTS

The State of the World's Forests

- *Billions of acres of forest and woodland that have been lost since agriculture began about 10,000 years ago: 2.5*
- *Billions of acres of forest that exist on Earth today: 10*
- *Millions of acres of tropical forest Earth is losing annually: 51*
- *Percentage of Earth's tropical forests that exist in Latin America: 57*
- *Percentage of Earth's tropical forests that exist in Brazil: 30*
- *Percentage of original moist forests remaining in tropical Africa: 40*
- *Percentage of original moist forests remaining in Asia: 37*
- *Portion of U.S. forests cleared between 1630 and 1920: 1/3*
- *Millions of acres of U.S. land that are covered with forest today: 737*
- *Percentage of original U.S. forest area that is tree-covered today, mostly with second-growth forest: 70*
- *Number of acres of old-growth U.S. forests, as of July 1989, that are clear-cut each month: 6,000*
- *Number of minutes it takes a logger with a chain saw to cut down a 33-foot wide, 1,000-year-old tree: 10*
- *Number of acres of old-growth forest that a pair of northern spotted owls, which live only in these forests, need to survive: 5,000*

- *Percentage of U.S. primary, old-growth forests that have been destroyed: 85*
- *Percentage of Madagascar's forests that have already been destroyed: 93*
- *Percentage of Brazil's Atlantic coast forests that have been destroyed: 99*
- *Number of acres of tropical forest that are destroyed each day: 140,000*
- *Number of acres of tropical forest that are destroyed each hour: 5,800*
- *Percentage of the world's tropical forests that were at least somewhat deforested before 1980: 40*
- *Number of different species of trees that have been found in one 4-mile by 4-mile square of Brazilian tropical forest: 750*
- *Number of species of mammals, birds, and reptiles, respectively, found in that same square: 125; 400; 100*
- *Millions of acres of Brazilian rain forest deforested in 1987, a year of intense land clearing by fire: 20*
- *Number of years it will take for all tropical rain forests to be completely cleared if present deforestation rates continue: 177*
- *Percentage of the world's tropical forests that are part of parks and reserves: Less than 5*
- *Ratio of tropical land deforested to tropical land reforested between 1981 and 1985: 10:1*
- *Number of square miles of Central European forest already destroyed or severely damaged, primarily due to air pollution: 23,000*

The State of the World's Species

- *Number of plant and animal species that have been identified and given scientific names: 1,400,000*
- *Millions of plant and animal species that scientists believe exist on Earth: 5 to 30*
- *Percentage of all species that are larger than a bumblebee: 1*
- *Portion of species that are insects or other "spineless creatures": 3/4*
- *Percentage of Earth's plants and animals believed to live in tropical rain forests: 50*
- *How many more fish species have been identified in the Amazon River system than in the Mississippi River system: 1,750*
- *Number of ant species that one biologist found in a single tree in Peru: 43*
- *Number of ant species found in the entire British Isles: 43*
- *Number of insect and mite species that live in the fur of a single sloth in Panama: 12*
- *Number of beetle species that live on sloths: 978*
- *Number of wasp species needed to pollinate the world's 900 fig species: 900*
- *Number of wasp species that pollinate each kind of fig: 1*
- *Percentage of Earth's species that could be extinct by the mid-twenty-first century if current deforestation rates continue: 25*
- *Conservatively estimated number of species that are becoming extinct in the tropics each day: 50 to 150*

- *Number of U.S. plants that face "a real risk of extinction" within five years, according to a recent survey of American botanists: 253*
- *Millions of years that have passed since species extinction rates—based then on natural causes—were as high as they are now: 65*

Our Botanical Dependence

- *Number of plants people use worldwide for food, medicine, and other purposes: 15,000*
- *Out of 75,000 edible plant species on Earth, the number that people have used for food: 5,000*
- *Number of plant species people depend on for 60 percent of their calories and 56 percent of their protein: 3*
- *Billions of dollars that all prescription and nonprescription drugs containing active ingredients derived from plants are worth each year: 40*
- *Percentage of tropical plants that have been screened for medicinal uses: less than 1*
- *Portion of plant species that scientists believe contain compounds with ingredients that are active against cancer: 1 out of 10*
- *Number of tropical forest plants that can possibly offer a cure for cancer: 1,400*
- *Billions of people in the developing world who depend mainly on wood for energy for cooking and heating: 2*
- *Percentage of Earth's population that depends mainly on wood for energy for cooking and heating: 40*

- *Billions of dollars the annual worth of tomatoes increased after a new strain was developed by crossing domestic plants with a wild relative found in South America: 5 to 8*
- *Millions of dollars Florida citrus growers save by using parasitic insects from the tropics to kill citrus-tree pests: 40*
- *Percentage of U.S. gross national product that comes from timber and related products: 4*
- *Millions of tons of paper and board that U.S. citizens consume annually: 69*
- *Percentage that U.S. paper and paperboard consumption increased each year between 1975 and 1984: 3.5*
- *Percentage that the paper and paperboard consumption of Britain and India increased, respectively, per year in the same period: 2.4; 6.6*
- *Billions of dollars that "minor forest products," such as rattan, bamboo, fruits, nuts, and spices, are worth each year: 10*
- *Millions of tons of bananas that people eat each year: 40*
- *Number of tons of mangoes and papayas, respectively, that people eat each year: 1,300,000; 1,500,000*

Side Effects

- *Biggest road-building agency in the world: U.S. Forest Service*
- *Thousands of dollars spent per mile to build a major logging road: 45*
- *Thousands of dollars per mile for secondary logging road: 15*

- *Millions of people who cannot get the fuelwood they need each day, even by overcutting the forests around them: 100*
- *Portion of the developing world's people who will lack a sustainable supply of fuelwood by 2000: 1/2*
- *Number of days a year women and children in some parts of the world spend searching for fuelwood: 100 to 300*
- *Earth's largest exporter of raw wood products: Malaysia*
- *Second-largest exporter of raw wood products: United States*
- *Number of times more money earned by selling fruit, cocoa, and rubber from an Amazonian forest tract than by selling all its trees as timber: 6*
- *Number of times more money earned by selling fruit, cocoa, and rubber from an Amazonian forest tract than by turning it into cattle pasture: 2*
- *Millions of acres damaged annually in India by floods thought to be caused by deforestation of the Himalayan mountains: 12*
- *Number of villages destroyed during India's 1978 monsoon season: 66,000*
- *Number of people evacuated due to deforestation-related flooding in the Philippines in 1981: 331,000*
- *Portion of land in Bangladesh that was under water following similar flooding in 1988: 2/3*
- *Millions of tons of topsoil lost annually on Indonesia's island of Java, which has just 15 percent of its original forest cover: 770*
- *Number of years of service that are regularly lost from hydroelectric dams as a result of sedimentation caused by deforestation: 25 to 50*

- *Billions of tons of carbon dioxide released in 1987 due to forest clearing and other changes in land use: 3*
- *Percentage of annual human-based carbon dioxide emissions that is accounted for by deforestation: 33*
- *Portion of Earth's deforestation-based carbon dioxide emissions that come from Brazil, Indonesia, Colombia, the Ivory Coast, and Thailand: 1/2*
- *Billions of tons of carbon dioxide that could be absorbed annually by 800,000 square miles of young forest: 1*

Trees of Life

TREES OF LIFE

Kenton Miller

NATURAL RESOURCES

Where to get additional information

Hopefully, this book has made you curious to find out more about our ancient forests and how you can help save them. These organizations can be a good starting point. They follow the issues and can help you stay up to date on the status of the forests and what needs to be done to protect them.

ORGANIZATIONS

National Groups

Association of Forest Service Employees for Environmental Ethics, P.O. Box 11615, Eugene, OR 97440. (503) 484-2692

Cooperative Extension (for help in selecting trees to plant in your area), affiliated with most county governments. Also called "agricultural extension."

Environmental Defense Fund, National Headquarters, 257 Park Ave. South, New York, NY 10010. (212) 505-2100

Regional Office: 5655 College Ave., Suite 304, Oakland, CA 94618. (415) 658-8008

Global ReLeaf, American Forestry Association, P.O. Box 2000, Washington, DC 20013

National Audubon Society, 801 Pennsylvania Ave. S.E., Washington, DC 20003. (202) 547-9009.

Oregon: Lane County Audubon, P. O. Box 5086, Eugene, OR 97405. (503) 485-2473

Washington: Seattle Audubon, 8028 35th Ave., N.E., Seattle, WA 98115. (206) 523-4483

National Wildlife Federation, 1400 Sixteenth St. N.W., Washington, DC 20036. (202) 797-6800

Natural Resources Defense Council, 40 West 20th St., New York, NY 10011. (212) 727-2700

Sierra Club, 730 Polk St., San Francisco, CA 94109. (415) 776-2211

Sierra Club Legal Defense Fund, 2044 Fillmore St., San Francisco, CA 94115. (415) 567-6100

The Wilderness Society, 900 17th St. N.W., Washington, DC 20006-2596. (202) 833-2300.

California: 116 New Montgomery, Suite 526, San Francisco, CA 94105. (415) 541-9144

Oregon: 610 S.W. Alder, Suite 915, Portland, OR 97205. (503) 248-0452

Washington: 1424 Fourth Ave., Suite 816, Seattle, WA 98101. (206) 624-6430

Southeast Alaska Natural Resources Center: 130 Seward St., Suite 407, Juneau, AK 99801. (907) 463-5333

Local and state groups

EPIC, P.O. Box 397, Garberville, CA 95440. Publishes a monthly environmental newsletter.

Friends of Opal Creek, P.O. Box 318, Mill City, OR 97360

Headwaters, P.O. Box 462, Ashland, OR 97520. (503) 482-4459

Klamath Forest Alliance, Box 577, Forks of Salmon, CA 96031. (916) 462-4742

Mendocino Environmental Center, 106 W. Stanley, Ukiah, CA 95482. (707) 468-1660

Native Forest Council, P.O. Box 2171, Eugene, OR 97402. (503) 688-2600

Northcoast Environmental Center, 879 Ninth St., Arcata, CA 95521. (707) 822-6918

Oregon Natural Resources Council, 1050 Yeon Building, 522 S.W. Fifth Ave., Portland, OR 97204. (503) 223-9001

Southeast Alaska Conservation Council, 419 Sixth Ave., Juneau, AK 99801. (907) 586-6942

Washington Environmental Council, 4516 University Way N.E., Seattle, WA 98105. (206) 547-2738

Western Canada Wilderness Committee, 20 Water St., Vancouver, BC V6B 1A4, Canada. (604) 683-8220

TIMBER COMPANIES

Here are some of the timber companies involved in logging the public forests of the Pacific Northwest. Do whatever you feel moved to do in good conscience to encourage them to cease this practice.

Top 10 purchasers of public timber in Washington and Oregon in 1989

(Ranked by Timber Data Company, Eugene, Oregon)

1 **Boise Cascade Corp.,** One Jefferson Square, Boise, ID83728

2 **ITT Rayonier,** 1177 Summer St., Stamford, CT 06904

3 **Pacific Lumber & Shipping,** 3131 Rainier Bank Tower, Box 21785, Seattle, WA 98111

4 **Roseburg Forest Products Co.,** P.O. Box 1088, Roseburg,OR 97470

Scott Pallets Inc., P.O. Box 657, Amelia, VA 23082

Diamond Lumber, Inc., 190 Cohasset Road, Chico, CA 95926

5 **Hampton Affiliates,** Hampton Lumber Sales Co., 9400 S.W. Barnes Road, Portland, OR 97225

6 **Vanport Manufacturing,** P.O. Box 97, Boring, OR 97009

7 **Warm Springs Forest Products,** P.O. Box 810, Warm Springs, OR 97761

8 **WTD Industries, Inc.,** 10260 S.W. Greenburg Road, Suite 900, Portland, OR 97223

9 **Omak Wood Products,** 729 S. Jackson St., Omak, WA 98841

10 **Miller Shingle Company,** P.O. Box 29, Granite Falls, WA 98252

More public-timber purchasers

Bald Knob Land & Timber Company, 700 N.E. Multnomah, Suite 274, Portland, OR 97232

Bohemia Inc., 2280 Oakmont Way, P.O. Box 1819, Eugene, Oregon 97440

British Columbia Forest Products Ltd., 1050 W. Pender St., Vancouver, BC V6E 2X5, Canada

DAW Forest Products Co., 4000 Kruse Way Place, Bldg. 2, Suite 355, Lake Oswego, OR 97035

Eel River Sawmills, Inc., 1053 Northwestern Ave., Fortuna, CA 95540

Freres Lumber Company, Inc., P.O. Box 276, Lyons, OR 97358

Georgia-Pacific Corp., P.O. Box 105605, Atlanta, GA 30348

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** Despite its suggestive title, it does have some good information on the Amazon and its tributaries.