

ADDICTIVE AND MEDICINAL PLANTS SERIES
LSD AND ERGOT [NC2199]

THE AMAZON: A VANISHING RAINFOREST

29 min; color; h,c,a
1/2" VHS **NC2139,VH**

Focuses on the research being done by INPA, an international group of scientists working in the Amazon River basin and rain forest. Shows some of the varieties of plants and animals that may be found only here. Also shows the burning of the forest in order to provide grazing land, which leaves the land unusable after two years, due to soil erosion and loss of nutrients. Considers briefly the economic need which drives the demand for grazing land. (VIEWPOP;CINEGU;c1987)

Agriculture—Economic aspects; Brazil; Environmental protection; Forests and forestry; CLACS

AMAZONIA: THE ROAD TO THE END OF THE FOREST

96 min; color; j,h,c,a
1/2" VHS **NC2038,VH**

Examines the destruction of the Amazon rain forest in Brazil as a result of government resettlement plans and investments from the World Bank. Shows the ecological destruction, the political and economic influences that foster unrestricted development, and the decimation of indigenous peoples and wildlife. Portrays the resistance to the destruction by native people such as the Kaipo Indians and the rubber tappers, led by Chico Mendes, who co-exist in balance with the environment. Shows emerging global concern juxtaposed with the rapid destruction of the rain forest. (CBCPRO;FILMK;c1990)

Brazil; Conservation of natural resources; Forests and forestry; CLACS

AMERICA'S RAINFOREST

32 min; color; h,c
1/2" VHS **NC2359,VH**

Discusses the reasons why it is important to conserve the remaining temperate rainforest in the Pacific Northwest, one of only three remaining temperate rainforests in the world. Includes opinions of forestry and national parks officials and environmental researchers in explaining why conserving rainforests is vital in terms of protecting species diversity, providing important plants for medicinal use, and preventing global warming. Defines basic terms and processes relevant to temperate rainforests: epiphytes, nurse logs, colonnades, and photosynthesis. Illustrates how different living things, such as lichens, participate in photosynthesis. Presents information on why the monocultural replacement of trees is not really reforestation because it limits the amount of species diversity. Includes an animated sequence, "Protect the Forest," by Direct Impact. (BOGENDA;FORTEJP;FFHS;c1992)

Conservation of natural resources; Ecology; Forests and forestry; U.S.—Regions

ANCIENT FORESTS: RAGE OVER TREES

60 min; color; c,a
1/2" VHS **NC2124,VH**

Looks at the head-to-head struggle between conservationists and loggers in the Pacific Northwest over the nation's old growth forests. For the timber industry, harvesting old growth allows for the planting of younger, more profitable trees, which the industry claims is an economic necessity. To conservationists, the destruction of this vital, natural ecosystem destroys the Northwest's tourist trade, the beauty of the landscape, and the habitat of thousands of animals. Hosted by Paul Newman. *Closed Captioned.* (NAUDSOC;PBSV;c1989)

Environmental protection; Forests and forestry; U.S.—Regions

ANGIOSPERMS—THE FLOWERING PLANTS

20 min; color; j,h,c
1/2" VHS **NC0939,VH**

Biology Series, Unit 6: Plant Classification and Physiology - Defines angiosperms and uses living examples to show the general parts of the flower. Uses animation to show pollination, pollen growth, and fertilization. Shows the role of the fruit in protecting the seed, and uses time-lapse photography to show seed dispersal. Views environmental factors such as photoperiodism and temperature as they influence flower formation. (EBEC;c1962)

Botany

BANKING ON DISASTER

78 min; color; c,a
1/2" VHS **GC1573,VH**

Documents the destruction of the Brazilian rain forest when a paved road, financed by the World Bank and the Brazilian government, encourages poorly planned colonization. Follows several families through their acquisition, struggle to farm, and eventual abandonment of the land. Traces the consequences of rain forest destruction on the Indian peoples and on the seringueiros, a union of Brazilian rubber tappers who have an ecologically sound, sustainable method of harvesting the forest. Shows the nonviolent political actions of various groups seeking to halt the consequences of World Bank and government policies. Divided into three 26-minute segments to facilitate classroom use. (CENITV; BULFROG;c1987)

Brazil; Economic development; Forests and forestry; International development

BATTLE FOR THE PLANET SERIES

For descriptions see individual titles:

GREENING THE LAND [CC4250]

BIODIVERSITY FOR FORESTS AND FARMS

28 min; color; c,a
1/2" VHS **NC2204,VH**

During the past decade, ecologists have documented the complex relationships among plants, animals, habitats, and society, and have demonstrated that with wise stewardship, forests and farms will continue to provide habitat for fish and wildlife and the many ecological services upon which we all depend. Through colorful graphics, outdoor settings and wildlife scenes, illustrates healthy ecosystems, outlines threats to the conservation of biodiversity, and describes some management practices that protect and enhance biodiversity for forests and farms. Interviews with wildlife and forest ecologists, farmers and forest owners define the concepts of biodiversity and ecosystem management and describe the ecological services and societal benefits provided by healthy ecosystems. Introduces the new technologies of GAP analysis and Geographic Information Systems and provides sources of additional information and assistance. (CORLU;c1996)

Agriculture; Ecology; Forests and forestry; Natural resources

BIOLOGY SERIES, UNIT 6: PLANT CLASSIFICATION AND PHYSIOLOGY

For descriptions see individual titles:

ANGIOSPERMS—THE FLOWERING PLANTS
[NC0939]

GYMNOSPERMS [NC0716]

BIOMES SERIES

For descriptions see individual titles:

TROPICAL RAINFOREST [NC1927]

CARNIVOROUS PLANTS

20 min; color; h,c

1/2" VHS **NC2248,VH**

Studies carnivorous plants, which have the ability to ensnare and digest insects or small animals. Explains that these plants need to enrich their diet because they grow where nutrients are scarce. Uses time-lapse photography to illustrate how the different types of plants trap and hold their prey. Includes a segment on sundews, unique for having a set of glands that secrete both a glue-like substance and digestive enzymes, and use slow-moving tentacles to wrap a victim. Focuses on the fast-closing venus flytrap that has three trigger hairs which, when touched, stimulate the trap to close. Also takes a look at the water wheel plant and the tiny bladderwort, which can engulf its prey in a fraction of a second. (MULLIST;ANGYAJE;FFHS;c1988)

Botany; Plants

THE CHEMISTRY OF FERTILIZATION

28 min; color; j,h,c,a

1/2" VHS **NC2079,VH**

Gender and Reproduction: A Natural History Series - Points out that, among many animals and all plants, fertilization—the meeting of cells—takes place without awareness. Covers fertilization among plants and explains the chemistry of reproduction in starfish. Shows how choice of sexual partner among animals—ranging from the battle between contending male deer to the decapitation of her mate by the praying mantis—is related to chemical messages from egg and sperm. (EOLISP;LASEFSO;FFHS;c1990)

Plants—Reproduction; Reproduction (Animals)

CONIFEROUS FOREST

20 min; color; h,c

1/2" VHS **NC1908,VH**

Wilderness Ecology Series - Examines the dynamics of a coniferous forest ecosystem, emphasizing the cyclic nature of the forest. Shows the breakdown of organic matter, the effects of photosynthesis and water cycles, and forest damage and revival. Employs wildlife photography and natural sound effects to explore the specialized survival mechanisms of forest inhabitants. Describes adaptive behaviors brought on by a change of seasons. (RIVERSP;CORT;c1988)

Ecology; Forests and forestry

THE DECADE OF DESTRUCTION SERIES

IN THE ASHES OF THE FOREST, PART 1

[CC5234]

IN THE ASHES OF THE FOREST, PART 2

[CC5235]

THE KILLING OF CHICO MENDES [CC5238]

DECIDUOUS FOREST

21 min; color; h,c

1/2" VHS **NC1909,VH**

Wilderness Ecology Series - Examines the dynamics of a deciduous forest ecosystem, emphasizing the cyclic nature of the forest. Shows the breakdown of organic matter and its effect on subvegetation, the crucial role played by fungi and parasites in promoting forest growth, and the effects of heat, light, and water. Follows the adaptive and reproductive habits of forest wildlife through the change of seasons. (RIVERSP;CORT;c1988)

Ecology; Forests and forestry

DEVELOPMENT IN VOLVOX

15 min; color; h,c

1/2" VHS **FC1392,VH**

Studies a green alga *Volvox carteri f. nagariensis* as a basis for understanding the growth and differentiation of other organisms. Focuses on the developmental stages of male, female, and asexual embryos. Separates gonidia from the parent spheroids to show development of asexual and female embryos, including cell divisions, differentiation into somatic and reproductive cells, inversion of the spheroids, release of male sperm packets and their penetration of the female, followed by germination of the zygote and subsequent development of the zoospore into a *Volvox* spheroid. (INUAVC;INUISS;p1976)

Algae; Embryology; Reproduction

DEVELOPMENTAL BIOLOGY SERIES

For descriptions see individual titles:

PATTERNS IN GREEN [NC2050]

THE DISAPPEARING FORESTS

27 min; color; h,c,a

1/2" VHS **GC1705,VH**

Spaceship Earth: A Global Geography Series - Surveys disappearing forests around the world. New Hampshire's White Mountains are popular with skiers who build condominiums, as well as with loggers who use drastic methods of whole-tree harvesting. In a protected enclave at nearby Hubbard Brook, scientists study forest ecology and management in intricate detail. In the Australian rain forest, Aborigines strive to keep their folk knowledge of each tree's economic role by teaching it to tourists, as well as to their own young people. Remote sensing satellites show tropical forests disappearing at a disturbing rate in Asia, Africa and South America. Though people have long cleared the forests for dwellings, firewood, and farming, human needs must now be weighed against the planet's survival. (SCETVN;c1991)

Environmental protection; Forests and forestry

FATE OF THE FOREST

58 min; color; h,c,a

1/2" VHS **NC1955,VH**

Only One Earth Series - Takes a global survey of trees in Japan, Norway, Britain, Panama, West Germany, Czechoslovakia, Switzerland, and the U.S. Shows how the trees are being devastated and why people should work to preserve them. (BBC;FI;c1987)

Forests and forestry

THE FIRES OF THE AMAZON

44 min; color; c,a

1/2" VHS **CC6436,VH**

Delineates the struggle between development in Brazil and the growing destruction of the rain forests. Explains the rapid destruction of the rain forest as a result of industrialization and the need for housing and agricultural land. Details the efforts of the martyred Chico Mendes and his current supporters throughout Brazil, some now in positions of power, as they continue to serve his memory by fighting for sustainable development. Filmed by Adrian Cowell ten years after his series "The Decade of Destruction." (BULFROG;c2002)

Anthropogeography—South America; Brazil; Environmental protection; Forests and forestry; Natural resources

Botany

FLOWERS AND INSECTS

30 min; color; h,c,a

1/2" VHS **NC1845,VH**

Life on Earth Series - Shows interdependent evolution as one of the results of the coming of flowers, when plants and insects began a symbiotic relationship that has shaped the evolutionary course of both. Discusses a variety of devices, incentives and interactions including the specificity of flowers' color, pattern and scent. Shows the necessity of the process of metamorphosis in insect development. Addresses specialized attractions in insects for purposes of reproduction, including color, scent, and rhythmic noise. (WARNER;FI;c1981)

Evolution; Flowers; Insects

FOOD CHAINS IN THE BIOSPHERE

18 min; color; j,h,c

1/2" VHS **NC2220,VH**

What Everyone Needs to Know about Science Today Series - Explains the fundamental parts (producers, consumers, decomposers, and abiotic parts) of the life cycle within the biosphere. Uses microphotography, moving pictures, graphics, and narration to explain the concepts of photosynthesis, food pyramids, simple food chains, food webs, decay, and energy flow through the biosphere. Concludes by encouraging the nurture and protection of green plants. *Closed Captioned.* (STONEBI;HAWKHAS;c1994)

Food chains (Ecology); Photosynthesis

FUNGI AND MAN

18 min; color; j,h,c,a

1/2" VHS **NC1682,VH**

Compares and contrasts the harmful and beneficial relationships between fungi and the human environment. Discusses the devastation caused by Dutch Elm disease, the destruction of the Irish potato crop, wheat fungi, and some of the parasitic fungal species which inhabit the human body. Illustrates the benefits of penicillin and yeast fungi. (BOUH;BENM;c1983)

Fungi

FUNGI: THE ONE HUNDRED THOUSAND

7 min; color; j,h,c

1/2" VHS **NC1766,VH**

Explores the world of fungi emphasizing the important role that fungi play in the cycle of life. Uses close-up scenes, photomicrography, and time-lapse photography to illustrate the beauty of many species, explain the processes of sexual and asexual reproduction, and demonstrate the production of antibiotics. (CORT;c1978)

Fungi

GENDER AND REPRODUCTION: A NATURAL HISTORY SERIES

Examines the many ways beings of all kinds reproduce: how male and female find one another, attract one another, couple, and produce one or more of a new generation that is alike but not identical. Shows also how anatomical, behavioral, and social characteristics are linked to the genetic goal of reproduction.

THE CHEMISTRY OF FERTILIZATION [NC2079]
REPRODUCTION AND THE ENVIRONMENT
[NC2087]

GENETICALLY MODIFIED CROPS: HOPE VS. HYPE

22 min; color; h,c,a

1/2" VHS **NC2408,VH**

Investigates the emergence of genetically modified food in the American food market. Explains crop hybridization. Looks at European laws governing labeling for genetically modified food. Includes interviews with scientists, farmers and consumers. (FFHS;c1999)

Advertising; Agriculture—Economic aspects; Botany;
Farm produce; Genetics

GREEN MEDICINES

53 min; color; h,c,a

1/2" VHS **HC1579,VH**

Discusses the fact that one-third of the medicines produced by drug companies are based on plant extracts, yet the drug companies have not invested much time or money in exploring the further possibilities of natural medicines. Argues that natural medicines are the mainstay of the poor people in the world, yet as forests disappear, nothing is being done either to replace the medicines or to retain the knowledge. Shows herbal medicines being used and studied in Thailand and Samoa, and discusses the role of the ethnobotanist. (SCANDIF;FFHS;c1990)

Anthropology; Botany; Drugs (Medical); Environmental protection

GREENING THE LAND

32 min; color; h,c,a

1/2" VHS **CC4250,VH**

Battle for the Planet Series - Reveals that worldwide deforestation strips thousands of acres of land each year, resulting in depleted local resources and harmful changes in the atmosphere. Shows how community involvement in strategic decision-making, such as the choice to use indigenous species, positively influences a project's success. (NFBC;INUISS;r1991)

Conservation of natural resources; Economic development; Forests and forestry; International development

GROWTH OF SEEDS

14 min; color; j,h,c

1/2" VHS **NC0407,VH**

Tells of the importance of seed-producing plants, distinguishes between angiosperms and gymnosperms and between dicotyledons and monocotyledons. Through time-lapse photography, shows the germination of a variety of seeds. Illustrates with samples of the various seeds and explains that all seeds are alike in that they contain an embryo, a seed coat, and food. By drawings, distinguishes between monocots and dicots and discusses the plumule and hypocotyl. Depicts the treating of seeds to speed germination and, by time-lapse photography, demonstrates germination. Points out that the size of the seed is no indication of the size of the resulting plant. (EBEC;c1957)

Botany; Seeds

GYMNOSPERMS

16 min; color; j,h,c

1/2" VHS **NC0716,VH**

Biology Series, Unit 6: Plant Classification and Physiology - Points out the importance of the gymnosperms in today's world and traces the life cycle of a representative species. Shows on a map of the United States the distribution of gymnosperms and using animation and time-lapse photography examines closely the life cycle of the pine. Points out that not all conifers are evergreen, for instance the bald cypress and the larch. Tells of the "living fossil" the Ginkgo tree, of the Cycads, and of the oldest of all living things, the bristlecone pine of California. Summarizes that this is a very important and interesting class of plants. (EBEC;c1961)

Botany

IN THE ASHES OF THE FOREST, PART 1

55 min; color; h,c,a

1/2" VHS **CC5234,VH**

The Decade of Destruction series - Chronicles the circumstances leading to the devastation of the Brazilian rain forest in the ten years from 1980 to 1990. Explains how the government initiated the colonization by offering free land to those who would clear it and build on it. Recounts the tales of families who had to contend with Indian attacks and poor quality soil that would not yield good crops. Follows an expedition led by the Indian Agency up-river to meet with the Indians to attempt peaceful contact. Documents the attempts to locate one man's seven year old son who was taken by the Indians. (COWELAD;BULFROG;c1990)

Brazil; Environmental protection; Forests and forestry; CLACS

IN THE ASHES OF THE FOREST, PART 2

55 min; color; h,c,a

1/2" VHS **CC5235,VH**

The Decade of Destruction series - Continues the story of the devastation of much of Brazil's rain forest during the 1980's. Examines the problems of massive deforestation and destruction caused by a project initially aimed at making a better world for the poor in Brazil. Confronts the effects of increased contact between the land settlers and the indigenous people, resulting in outbreaks of disease, causing the death of one in six Indians. Talks with Jose Lutzenberger, Secretary of the Environment, who identifies flaws in the scheme. Debates the role of the World Bank in lending money for the ill-conceived Polar Neste Project to pave a road through the forest. (COWELAD;BULFROG;c1990)

Brazil; Environmental protection; Forests and forestry; Political science; CLACS

INTRODUCING PHOTOCHEMISTRY

25 min; color; h,c

1/2" VHS **FC1513,VH**

Photochemistry Series - Uses laboratory experiments and animation to provide a basic introduction to photochemistry. Explains the nature of light and the way that light creates chemical reactions through the absorption and release of energy. Describes the process by which light is absorbed and split into component wave lengths. Demonstrates the devices used by photochemists to analyze and measure light. (OPENUN;MEDG;c1981)

Chemistry; Photosynthesis

JUNGLE

60 min; color; h,c,a

1/2" VHS **NC1868,VH**

The Living Planet--A Portrait of Earth by David Attenborough series - Explores from top to bottom and through various layers a kapok tree whose crown emerges above the jungle canopy. Yields the discovery of colorful and unusual animals and plants of the jungle throughout the trip down the tree. (BBC;AMBROSV;c1984)

Forests and forestry

JUNGLE PHARMACY

53 min; color; c,a

1/2" VHS **NC2141,VH**

Protecting the Global Environment Series - Discusses the many medicinal plants available in the rain forest, such as curare, used as an anesthetic for surgery. Shows ethnobotanists at work with native shamans and medicine men to collect their knowledge of medicinal plants, as well as to encourage programs where Indian villagers cultivate medicinal plants as a cash crop. Stresses the importance of documenting this knowledge before it is lost. (CENITV;CINEGU;c1989)

Botany; Drugs (Medical); Indians of South America

THE KILLING OF CHICO MENDES

55 min; color; h,c,a

1/2" VHS **CC5238,VH**

The Decade of Destruction series - Chronicles the rise to international influence and eventual assassination of Chico Mendes, a Brazilian rubber tree tapper (seringueiro) turned activist, who waged a campaign during the 1980's to halt the deforestation of Brazil's rainforest. Tells of the Brazilian government's tolerance toward and participation in the deforestation and of the alliance formed between the National Council of Seringueiros and Brazil's Indians. Notes the funding received from the World Bank for the paving of a highway through the rainforest. Concludes with the Brazilian government setting aside 50 million acres of rainforest as 'extractive reserves' for the seringueiros to use after Mendes' assassination in 1988. (CENITV;BULFROG;c1990)

Biography; Brazil; Environmental protection; Forests and forestry; CLACS

LIFE ON EARTH SERIES

Blends scientific data with wildlife photography in this series hosted by wildlife expert David Attenborough. Traces the development of life based on the principal theme that each species of organism found on Earth represents a particular solution to the problem of staying alive. Examines some of the adaptive strategies developed in evolution to solve this problem.

FLOWERS AND INSECTS [NC1845]

LIFE SCIENCE/ECOSYSTEM SERIES

For descriptions see individual titles:

SUCCESSION [NC2222]

THE LIVING PLANET--A PORTRAIT OF EARTH BY DAVID ATTENBOROUGH SERIES

Presents David Attenborough as guide on a naturalist's tour of the world. Includes scenes filmed in 63 countries on all seven continents.

NORTHERN FORESTS [NC1867]

JUNGLE [NC1868]

SEAS OF GRASS [NC1869]

LSD AND ERGOT

26 min; color; h,c,a

1/2" VHS **NC2199,VH**

Addictive and Medicinal Plants Series - Uses an historical perspective to examine the ergot fungus and its links to LSD. Describes the symptoms associated with ergot poisoning and looks at how they are depicted in art from the Middle Ages. Discusses an outbreak of ergot poisoning in France in 1951, traced to contaminated rye bread. Examines the chemical constitution of ergot and illustrates how it is cultivated. Presents examples of the use of ergotamine drugs in modern medicine, research on its psychoactive properties, its use in a healing ceremony by a Mexican shaman, and hypotheses of its use in ancient Greece. (GMTPROD;FFHS;c1993)

Drugs (Medical); Fungi

MAN AND THE BIOSPHERE SERIES

THE TROPICAL RAINFOREST [NC2122]

NATURE SERIES

For descriptions see individual titles:

THE ROTTEN WORLD ABOUT US [NC1714]

NATURE'S NUMBERS: ASSESSING SPECIES EXTINCTION

50 min; color; c
1/2" VHS **NC2360,VH**

Follows a four-member team sponsored by Conservation International as they attempt a Rapid Assessment Program (RAP), a count of all important species, in Bolivia. Discusses the history of environmental and species studies, the debate over numbers in determining extinction threats, the environmental movement, the effects of forest fragmentation and fire, and the species-area theory or curve. Interviews scientists, environmentalists, biologists and ecologists. Includes examples of threatened species and archival video clips. (OSULLKA;BBC;FFHS;c1996)

Bolivia; Ecology; Environmental protection; Forests and forestry; Wildlife conservation

NORTHERN FORESTS

60 min; color; h,c,a
1/2" VHS **NC1867,VH**

The Living Planet—A Portrait of Earth by David Attenborough series - Visits the largest tract of trees in the world, which stretches from the Arctic Circle to Florida. Discusses the northern coniferous trees which have adapted to survive long cold winters. Notes that animals which populate this area of the forest depend on bark, cones, or berries. Contrasts with deciduous trees which appear further south. (BBC;AMBROSV;c1984)

Forests and forestry

NOVA SERIES

For descriptions see individual titles:
SEEDS OF TOMORROW [NC1758]

ONLY ONE EARTH SERIES

Shows how the world's life-sustaining environment is being eroded at an ever-increasing pace. Looks at global ecology by exploring and demystifying the links between environment and development. Illustrates the detrimental clashes between economics and ecology. Presents positive examples of how to achieve development without harming the environment. *For descriptions see individual titles:*

FATE OF THE FOREST [NC1955]

OUR VANISHING FORESTS

27 min; color; h,c,a
1/2" VHS **NC2162,VH**

Argues against continuing the practice of clear cutting timber in the National Forests. Discusses the history of the Forestry Service, and explains what the original principles and methods of forest management were. Considers reasons why the policy changed from selective cutting to clear cutting. Offers several arguments which support ending clear cutting on public land. Suggests replacement jobs for those lost if clear cutting in the National Forests were forbidden. (PUBCOMI;BULFROG;c1992)

Conservation of natural resources; Forests and forestry; National parks and reserves; U.S.—Politics and government

PATTERNS IN GREEN

25 min; color; h,c
1/2" VHS **NC2050,VH**

Developmental Biology Series - Illustrates with specimens and graphics the three basic plant patterns (or phyllotaxes) of spirals, zig-zags, and whorls. Uses photomicrography and computer modeling to illustrate Paul Green's theory that a single type of genetic mechanism controls these patterns. Argues that flowers are structured to most effectively lure insects and achieve pollination and that evolutionary processes appear to favor whorled patterns toward this end. (OPENUN;CORT;c1990)

Botany

PHOTOCHEMISTRY SERIES

For descriptions see individual titles:
INTRODUCING PHOTOCHEMISTRY [FC1513]

PHOTOSYNTHESIS IN PURPLE BACTERIA SERIES

19 min; color; h,c
1/2" VHS **NC2004,VH**

Includes three programs. *Photosynthesis Without Oxygen (Molisch's Assertion)* shows the characteristics of purple bacteria. *Isolating Pure Cultures (Van Niel's Technique)* presents a step-by-step demonstration of the technique for isolating strains of purple bacteria from a raw culture. *Comparison with Higher Plants (Van Niel's Analogy)* discusses the link between bacterial and green-plant photosynthesis. (INSFWFG;IFB;c1982)

Photosynthesis

PROTECTING THE GLOBAL ENVIRONMENT SERIES

JUNGLE PHARMACY [NC2141]
VOICE OF THE AMAZON: CHICO MENDES [NC2138]

RAINFOREST BIOMES

20 min; color; h,c
1/2" VHS **NC2436,VH**

Covers the basics of rainforest ecology and various environmental issues such as the impact of environmental changes in rainforest systems. Describes tropical and temperate rainforests, and enumerates some of their diverse flora and fauna. Points out that rainforests are at risk from deforestation due to subsistence farming and lumber exports. (FFHS;c2002)

Ecology; Environmental protection; Forests and forestry

RAINFOREST: THE PUZZLE OF BIODIVERSITY

25 min; color; h,c,a
1/2" VHS **NC2358,VH**

Presents the scientific problem, "How can such a huge and diverse number of species co-exist in one place?" and relates this question to research on a rainforest in Barro Colorado Island in Panama. Evaluates census research conducted longitudinally at three distinct periods, documenting the dynamics of trees in the forest and patterns between adults and juveniles of a particular plant species. Presents research on seedling distribution, fungal/viral pathogens, and canopy ecology. Concludes that the Jansen and Connell hypothesis is supported by the data on mortality trends of seedlings, and states that the diversity of trees exist because of lack of competition between different species. (JOLLYTO;FFHS;c1995)

Adaptation (Plants); Ecology; Forests and forestry; Panama, Republic of; CLACS

THE REALMS OF THE RUSSIAN BEAR SERIES

Presents natural history of Russia and the Central Asian Republics. Hosted and narrated by George Page, along with Nikolai Drozdov.

SIBERIA: THE FROZEN FOREST

55 min; color; c,a
1/2" VHS **GC1739,VH**

Siberia, stretching across the northern reaches of Russia, is a land of extremes and superlatives. It has the greatest forest on Earth, an immense expanse of spruce, pine and fir spanning 6,000 miles. From the wolves and the elk to the musk deer, all its inhabitants have one thing in common: an ability to survive temperatures which can plummet to an incredible 90 degrees below zero Fahrenheit. Lake Baikal, in the southeast, is the oldest and deepest on Earth and is home to a host of unusual creatures. Descending to depths of more than 2,500 feet, cameras catch glimpses of the lake's hidden denizens—forests of sponges, transparent fish and bizarre crustaceans found nowhere else. Baikal, too, falls under the reign of the bears, who emerge in vast numbers from the forest to hunt along the edge of the lake. (SPARKJO; WNET/13;c1992)

Forests and forestry; Natural history; Russia and CIS (1991)

REPRODUCTION AND THE ENVIRONMENT

19 min; color; j,h,c,a
1/2" VHS **NC2087,VH**

Gender and Reproduction: A Natural History Series - Points out that, since variations in sexual reproduction are but one of the many physiological and behavioral phenomena that determine the life of plants and animals, the natural history of sex cannot be examined apart from the elements necessary to support the life of a species—food, climate, other species sharing the same environment, and relationships with other members of the same society. (EOLISP;LASEFSO;FFHS;c1990)

Ecology; Reproduction

ROBERT FORTUNE: THE TEA THIEF

52 min; color; j,h,c,a
1/2" VHS **CC6383,VH**

Documents the role of 36-year-old botanist Robert Fortune in the tea trade between Britain and China. Explains the history of tea, including the Opium Wars and the events that led up to it. Shows the dominant role of the East India Company in trade with Asia. Details Fortune's 1848 journey into China to gather tea plants illegally, a venture commissioned by the governor of India. Shows how Fortune's discoveries led to the collapse of the tea trade in China and the rise of trade in India. Uses excerpts from Fortune's travel journals to show the places he visited and the measures he took to hide his identity. Shows the proper methods of harvesting and preparing tea. Interviews tea experts, including Gu Jia Wen, Director of the Tea Research Institute, Dong Shu Duo, Director of Lu Yu Tea Culture Association, Antony Wild, Director of the East India Company, Francois-Xavier Delmas, a tea merchant; Sue Minter, Curator of the Chelsea Physic Garden in London, and Jing Ageng, a tea farmer from Sung Lo Hill. Parts in Chinese and French with English subtitles. (FILMK;c2001)

Botany; China; Food supply; Great Britain; India; International business

THE ROTTEN WORLD ABOUT US

50 min; color; h,c,a
1/2" VHS **NC1714,VH**

Nature Series - Unravels the mysteries of mushrooms and molds, illustrating with time-lapse and microphotography the way fungi feed, grow, and multiply. (BBC;F;c1980)

Fungi

RUNA: GUARDIANS OF THE FOREST

27 min; color; c,a
1/2" VHS **CC4214,VH**

Combines anthropological and ecological insight to explain how the profound ecological knowledge of native Amazonian peoples such as the Runa—an Indian community in the Ecuadorian rain forest—offers hope for the future preservation of the rain forests. Uses commentary by the Runa themselves to explore their adaptation to life in the rain forest and to capture their feelings about their rain forest homeland. Shows scenes of Runa daily life, including tree selection and felling, the planting and harvesting of manioc, canoe making, fishing, and a weeklong Easter fiesta. Documents the increasing threat from colonists, lumber companies, and multinational development interests to their environment, traditional lands, and way of life. (SPEISE;IRVINED;UCEMC; c1989)

Anthropogeography—South America; Conservation of natural resources; Ecuador; Forests and forestry

SCHOLARSHIP OF TEACHING AND LEARNING SERIES

TAKING THE EXCITEMENT OF DISCOVERY TO THE CLASSROOM AND BEYOND (SOTL) [EC3141]

SEAS OF GRASS

60 min; color; h,c,a
1/2" VHS **NC1869,VH**

The Living Planet—A Portrait of Earth by David Attenborough series - Observes that grass grows all over the world and sustains a wide variety of creatures. Visits African grasslands which provide homes to such animals as the antelope, zebra and wildebeest, along with their predators the lion and the cheetah. (BBC;AMBROSIV; c1984)

Botany; Ecology

SEEDS OF TOMORROW

58 min; color; i,j,h,c,a
1/2" VHS **NC1758,VH**

Nova Series - Visits Ethiopia, Greece, and Peru to examine the genetic heritage of our foods and the worldwide efforts to save the seeds plant breeders use to create new and better crops for the future. Shows how the advanced agricultural technologies of the "green revolution," developed to increase the food supply, threaten the vigor of the gene pool by letting traditional strains die out in favor of hybrid monocultures. (WGBHTV;CORT;c1985)

Agriculture; Food supply; Genetics; Seeds

THE SHAMAN'S APPRENTICE

54 min; color; h,c,a
1/2" VHS **CC6012,VH**

Shows how an American ethnobotanist looks for medicinal plants in the Amazon. Explains the importance of rainforests to the Earth's survival and advocates their preservation. Gives specific examples of how plants can cure illnesses and shows shamans preparing complex medicinal potions from plants. Introduces the Shaman Apprentice program, which works to pair young people with shamans to learn shamanic medicine. Includes interviews with several natives in the Suriname forest and relates their myths of the rainforest. Shows how the shaman is one of the most endangered species of the rainforest. *English subtitles.* (BULFROG;c2001)

Amazon River; Anthropology; Environmental protection; Forests and forestry; Holistic medicine; Indians of South America; CLACS

SPACESHIP EARTH: A GLOBAL GEOGRAPHY SERIES

Takes a satellite's-eye view of the Earth, providing a unified look at the rich variety and interdependence of life and land on the planet. Makes extensive use of Earth monitoring technologies, including satellite imaging, remote sensing, sonar, and lasers. Examines such global concerns as population, climate, forest, food supplies, and oceans and rivers to show how seemingly diverse life-systems depend on each other. *For descriptions see individual titles:*

THE DISAPPEARING FORESTS [GC1705]

THE SPIRIT OF KUNA YALA

60 min; color; c,a

1/2" VHS

GC1693,VH

Portrays in their own words the Kuna Indians of Panama's San Blas Islands and their deep spiritual, economic and cultural ties to their rainforest homeland, Kuna Yala. Documents the Kuna's villages built on islands, cultivation and foraging of the mainland forest, adaptations to a modern money economy, and increasing migration to urban centers. Follows a group of ambitious young Kuna who blend traditional wisdom with modern scientific techniques to protect their forest and prevent the encroachment of western-style development. Looks into the individual lives of a variety of Kuna including an aging spiritual leader, a teenager who likes heavy metal music, and a young professional woman who enjoys an urban lifestyle. (ARCHIOF;FILMK;c1990)

Anthropogeography—Central America; Forests and forestry; Indians of Central America; Panama, Republic of

SPORE DISPERSAL IN THE BASIDIOMYCETES

15 min; color; c,a

1/2" VHS

NC1827,VH

Demonstrates, through time-lapse and close-up photography, the process of spore dispersal in higher order fungi. Identifies gills in various hymenomycetes, explaining that the spore-bearing layer is contained within the gills and describing how spores travel to spaces between the gills and then drop to the ground. Discusses the gasteromycetes, in which the basidia and spores are enclosed in the peridium and spores are released by rain and then dispersed by the wind. Highlights such organisms as death cup, club-footed clitocybe, coral fungi, teeth fungi, inky caps, bird's nest fungi, puffballs, earthstars, and stinkhorns. (PENNSU;c1984)

Fungi

SUCCESSION

24 min; color; j,h,c,a

1/2" VHS

NC2222,VH

Life Science/Ecosystem Series - Demonstrates, with Presque Isle on Lake Erie, the ecological succession which occurs as land is built up from sand. Uses computer graphics to show how the sand split actually moves and grows over time. Explains and illustrates how the sand is built up into a beach, how the first living things take hold, and how eventually a dense forest inhabited many species will develop. (OXFOSCF;BENM;c1994)

Adaptation (Biology); Ecology; Forests and forestry; Physical geography

TAKING THE EXCITEMENT OF DISCOVERY TO THE CLASSROOM AND BEYOND (SOTL)

color; c

1/2" VHS

EC3141,VH

Scholarship of Teaching and Learning Series - In a September 24, 2004 presentation as part of the Scholarship of Teaching and Learning at Indiana University, Dr. Roger Hangarter, professor of Biology at IUB, discusses his use of time-lapse photography, a basic research method, to dispell students' misconception that plants are boring and unchanging. In doing so, he has helped recruit students to plant biology, sharpened their observational skills, and improved the quality and character of the questions they ask. Additionally, his videos have been received enthusiastically by a broad audience in research, public education and the arts. (INUISS;c2004)

Botany; Universities and colleges

TONG TANA

84 min; color; h,c,a

1/2" VHS

CC4307,VH

Looks at the nomadic Penan people of Borneo whose lives in the 160-million-year-old rain forest are jeopardized by the logging and destruction of their habitat. Introduces Bruno Mansur, a European who lives among the Penan, adopting their lifestyle and working to prevent the rain forest destruction. Shows the Penans' daily life in the ecologically complex environment. Shows the logging devastation, and the conflict of interest evidenced by the minister of the environment's ownership of a logging company. Explains how current deforestation patterns will eliminate the rain forest in a decade. *Closed Captioned.* (KRUSERF;ICAR;c1990)

Anthropology; Environmental protection; Forests and forestry; Islands of the Pacific

THE TROPICAL RAINFOREST

28 min; color; c,a

1/2" VHS

NC2122,VH

Man and the Biosphere Series - Examines the complex and intriguing ecosystem of the rainforest, including the adaptation of leaves to heavy rainfall; the role of lianas, epiphytes, bromeliads, and carnivorous plants; the ecological roles of marsupials and monkeys, birds and mammals, herbivores and carnivores; and the unique insect life in the tropical forest. (EOLISP;FFHS;c1991)

Ecology; Forests and forestry

A TROPICAL RAINFOREST

26 min; color; h,c

1/2" VHS

NC2335,VH

Defines ecosystem and related terms and describes the contemporary Amazonian rainforest ecosystem. Explains laws of energy in relation to rainforests and illustrates concepts with a focus on plant and animal life. (HAWKHAS;c1998)

Amazon River; Ecology; Forests and forestry; CLACS

TROPICAL RAINFOREST

12 min; color; j,h

1/2" VHS

NC1927,VH

Biomes Series - Explains that the rain forest is made possible by frequent and heavy rains and the solar power of the brilliant tropical sunshine, which confines rain forests to areas near the equator. Explores the multitude of life in the tropical rain forest and defines four distinct layers that help to explain the great diversity of life. (CORT;c1989)

Ecology; Forests and forestry

VIETNAM: AFTER THE FIRE, PARTS 1 & 2

53 min; color; c,a
1/2" VHS **NC2144,VH**

Investigates the environmental impact of Vietnam's war with the United States. Talks with U.S. and Vietnamese scientists about the possibility of repairing the damage done to the ecology of Vietnam, and the reasons why the forests cannot regenerate on their own. Considers the role of the chemical defoliant used by U.S. troops in the lack of regrowth and regeneration of plant life, as well as showing the deformities suffered by those who were heavily exposed to it. *Closed Captioned.* (MILNEJE; CINEGU;c1988)

Forests and forestry; Pollution; Vietnam; Vietnamese Conflict 1961-1975; War and society

VIETNAM: AFTER THE FIRE, PARTS 3 & 4

53 min; color; c,a
1/2" VHS **NC2145,VH**

Investigates the lingering effects of Agent Orange on the land and people of Vietnam. Discusses the high rate of stillbirths and birth defects in children born to parents exposed to the chemicals, the attempts to clear the land and the water supply of toxins, and efforts to return the landscape to a pre-war state to regain the ecological balance necessary for successfully farming the land. Examines successful programs for re-growing a rain forest and bringing bird populations back from near extinction. *Closed Captioned.* (MILNEJE;CINEGU;c1988)

Forests and forestry; Pollution; Vietnam; Vietnamese Conflict 1961-1975; War and society

VOICE OF THE AMAZON: CHICO MENDES

57 min; color; c,a
1/2" VHS **NC2138,VH**

Protecting the Global Environment Series - Examines the life and work of environmentalist and rubber tapper Chico Mendes, who started a modern movement to protect Brazil's tropical rainforests. His assassination in December 1988 revealed the depth of emotion in Brazil surrounding the political and economic forces shaping that country's government policies. Examines the incentive to exploit the forests, documents viable approaches to sustaining rainforest resources, and proves that a growing environmental movement, supported by a vigilant international community, can succeed in implementing these approaches. Includes the last filmed interview Mendes gave before his death. (SMITHMI;CINEGU;c1989)

Biography; Brazil; Environmental protection; Forests and forestry

THE WAIAPI INDIANS OF BRAZIL SERIES

The Waiapi Indians live in the Amazon rain forest in northeastern South America. This series of five programs focuses on the Waiapi who live in the Amapari region near the Tumukumake mountains in northern Brazil. Because music and dance are essential to Waiapi culture, they provide the primary focus of two programs in the series and major components of the remaining three. Contact with the western world is a relatively recent event in Waiapi history; as a result, these five programs contribute greatly to understanding this little-known culture.

WAIAPI SLASH AND BURN CULTIVATION [CC3780]

WAIAPI SLASH AND BURN CULTIVATION

22 min; color; c,a
1/2" VHS **CC3780,VH**

The Waiapi Indians of Brazil series - The Waiapi, like rain forest dwellers throughout the world, use slash and burn cultivation to grow foods that provide variety and nutritional balance to their diet. A forest area is cut, the vegetation burned, and the ashes used for fertilizer. Planting and harvesting yield a host of edible and utilitarian plants, and after two years, the gardens are abandoned for regeneration by the rain forest, thereby maintaining a healthy balance with nature. (FUVIC; INUISS;c1987)

Agriculture; Anthropogeography-South America; Forests and forestry; Indians of South America

WHAT EVERYONE NEEDS TO KNOW ABOUT SCIENCE TODAY SERIES

FOOD CHAINS IN THE BIOSPHERE [NC2220]

WHAT PLANTS NEED FOR GROWTH (SECOND EDITION)

11 min; color; p,i
1/2" VHS **NC1706,VH**

Demonstrates how plants depend on water, air, light, food, and warmth to survive. Illustrates, with the use of animation, time-lapse photography and laboratory experiments, the effects of these essential elements on plants and the negative effects when the plant is deprived of one or more elements. Examines some agricultural practices that enhance the food supply by controlling water and plant nutrition. (EBEC;c1982)

Plants

WHOSE HOME ON THE RANGE

56 min; color; c,a
1/2" VHS **CC5867,VH**

Documents the conflict resolution process between ranchers, loggers, the U.S. Forest Service and environmentalists in Catron County, New Mexico. Includes a brief description and history of the area. Shows all sides of the conflict through interviews and profiles, the monthly citizen discussion meetings initiated by the county doctor out of concern for the health of the citizens, the role of a mediator in getting the discussion going, and the common project decided upon that meets everyone's needs. Chronicles the progress and setbacks of the group, discusses the threat of violence among all parties involved, and surveys the environmental problems in the county. (DIATZBE;BULFROG;c1999)

Cowboys; Environmental protection; Forests and forestry; Interpersonal relations; Regional planning; Social conflict

WILDERNESS ECOLOGY SERIES

Explores nature's ecological cycle, showing how plant and animal life in three distinct environmental niches interact and adapt, struggle and die, to perpetuate the cycle. *For descriptions see individual titles:*

CONIFEROUS FOREST [NC1908]
DECIDUOUS FOREST [NC1909]