

EQUATORIAL RIVER

lowing where the equator crosses the continent of South America, the Amazon is the biggest river system on Earth - so grand that the Portuguese explorers called it "the River Sea." The volume of water carried by the Amazon is staggering - greater than the combined flow of all other rivers. Annually, torrential rains deposit an additional two to three metres of water in most regions of the Amazon basin. Fresh water cascades from glacier lakes high in the Andes and from thousands of sources in the Brazilian and Guyanese highlands.

The world's largest and most spectacular tropical rain forest thrives in these conditions of moisture, heat and intense light. It is a hothouse of life where millions of years of evolution have created a profusion of flora and fauna unrivalled elsewhere on Earth. Most of the known plant species are found here. Extraordinary varieties of birds, reptiles, mammals and insects are bound in intricate webs of coevolution with the river and the rain forest. Here, too, are aboriginal peoples who live attuned to their surroundings.

Equatorial River is a timely film, given the heightening controversy over the massive encroachments being made on the Amazon rain forest. Increasingly, scientific evidence is revealing how vital this ecosystem is to our planet. To date, twenty per cent of the forest, an area larger than British Columbia, has been devastated by logging, mining, road building and farming. Equatorial River shows viewers the wealth of life that is at stake.

Audiences: General audiences: Education, grades 8-13 Subject areas: Science and Environmental Studies (Ecology; Biology); Geography

Some suggestions for discussion:

1. What are the factors that make the Amazon basin such a teeming hothouse of life forms? How do mountains, glacier lakes, and the weather conditions of the equatorial Atlantic contribute to this hothouse?

- 2. What two main rivers converge to form the Amazon?
- Explain what is meant by "seasons of moisture."
- Describe the layered zones of vegetation that comprise the rain forest. Is there anything that surprised you about the plant life there? How has animal life adapted to the vertical zones of the forest? Discuss some of the symbiotic relationships between plant and insect
- 5. Despite the poor quality of most soils in Amazonia, vital nutrients such as phosphorus, nitrogen and soluble minerals are present. Discuss how these nutrients are caught up and recycled within this ecosystem.
- 6. Discuss the relationship of aboriginal peoples to this tropical ecosystem.
- 7. The film states that by returning water to the air, the rain forest perpetuates the abundance of the Amazon. To date. twenty per cent of the forest (200,000 square miles) has been destroyed by loggers, miners, road builders and farmers. Discuss the effects of such destruction on flora and fauna, and on weather conditions - not only in the Amazon basin but in the world. What might be the effects as larger areas of the forest are devastated? Include consideration of what will happen to Amazonia's indigenous populations.

Bibliography

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Note: Equatorial River's footage was drawn from the NFB film Biosphere and from extensive stockshot material on Amazonia.

Directed by Bruce Mackay and William Hansen

Written by William Hansen

Editor Bruce Mackay

Cinematographer David de Volpi

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Re-recording Hans Peter Strobl

Produced by Dennis Sawyer and Bruce Mackay

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