Hot Science Cool Talks

UT Environmental Science Institute

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Hotspot of Biodiversity: Unique and Endangered Animals of Central Texas

Dr. David Hillis

November 17, 2000

Hotspot of Biodiversity:

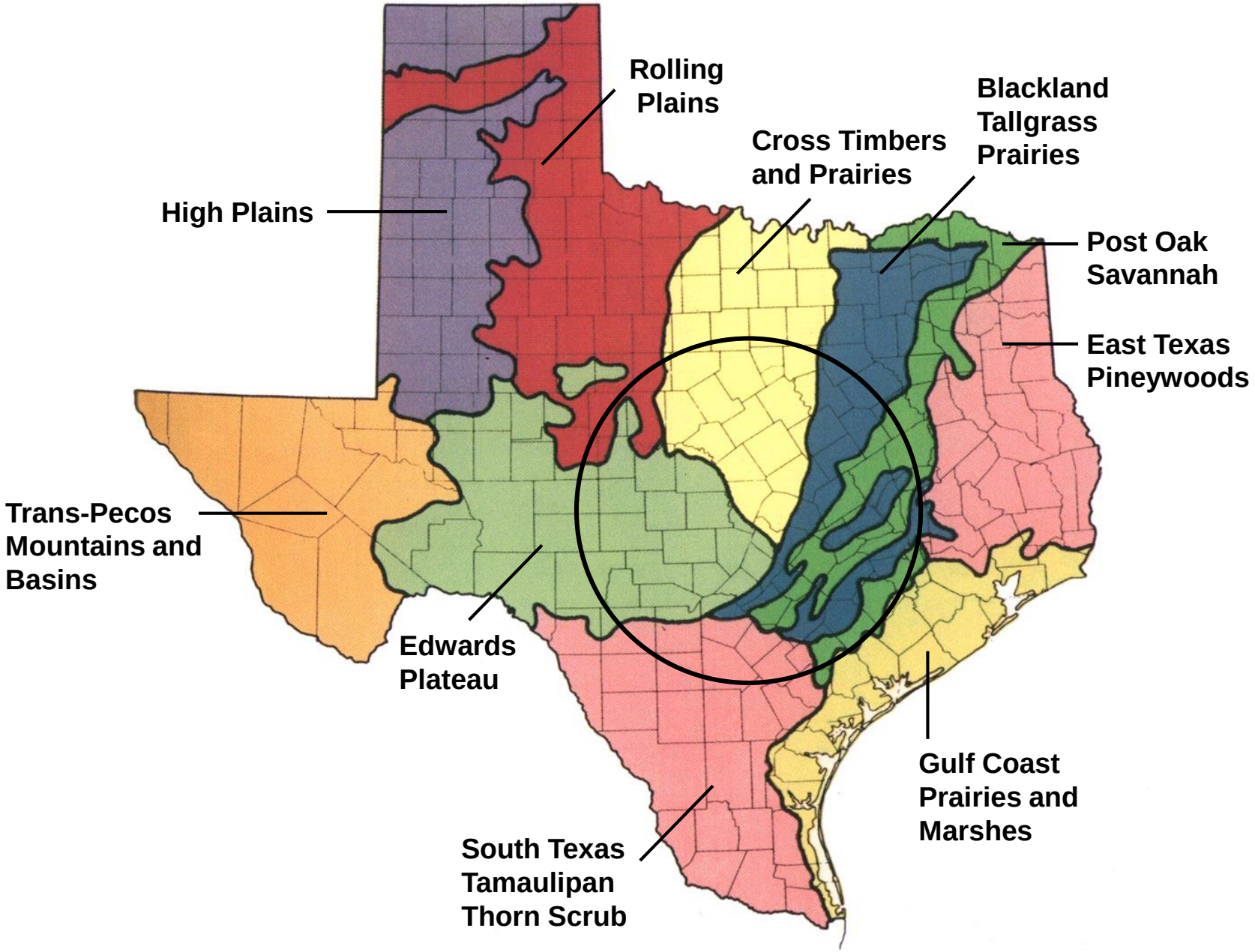
Unique and Endangered Animals of Central Texas

Dr. David M. Hillis

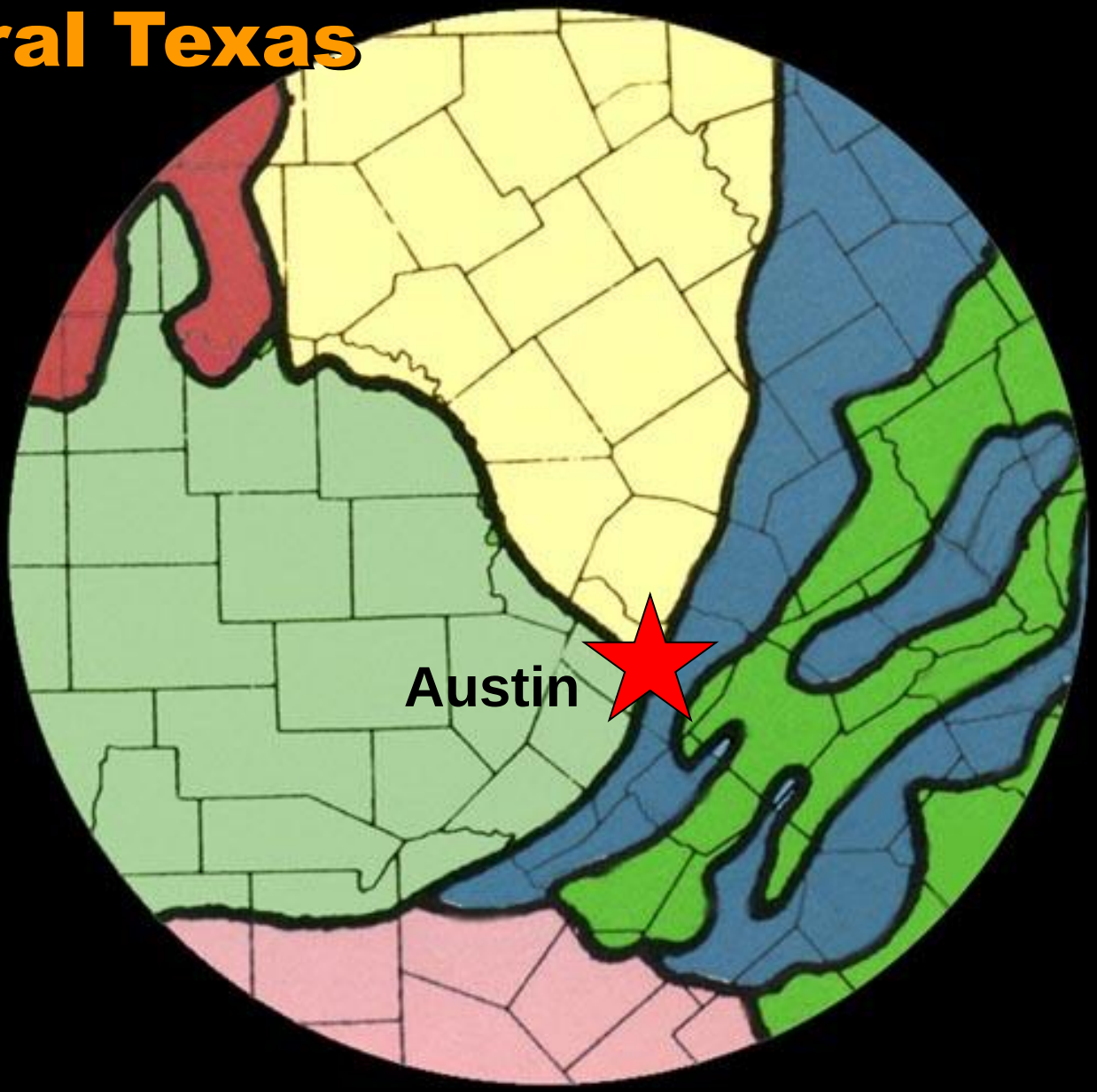
Lost Biodiversity


Endangered Species

New Discoveries


Rolling Plains
Blackland Tallgrass Prairies
Cross Timbers and Prairies
High Plains
Post Oak Savannah
East Texas Pineywoods
Trans-Pecos Mountains and Basins
Edwards Plateau
Gulf Coast Prairies and Marshes
South Texas Tamaulipan Thorn Scrub

Central Texas



Land Development / Habitat Destruction

Introduced Species

Water Use: Loss of Aquifers and Springs

Water Pollution: Degradation of Rivers

Effects of Agriculture

Habitat Destruction

Sound for Mac

Click once, with cursor on image, to activate sound.

Sound for PC:

Double click here

A warning may come up about viruses. Just click OK.

The sound called: 15.b. houst.sing.47.11k.aiff, does not play in Adobe Acrobat. 15.b. houst.sing.47.11k.aiff can be found in the images directory.

Sound for Mac

Click once, with cursor on image, to activate sound.

Sound for PC:

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16.b. vall.sing.85.11k.aiff can be found in the images directory.

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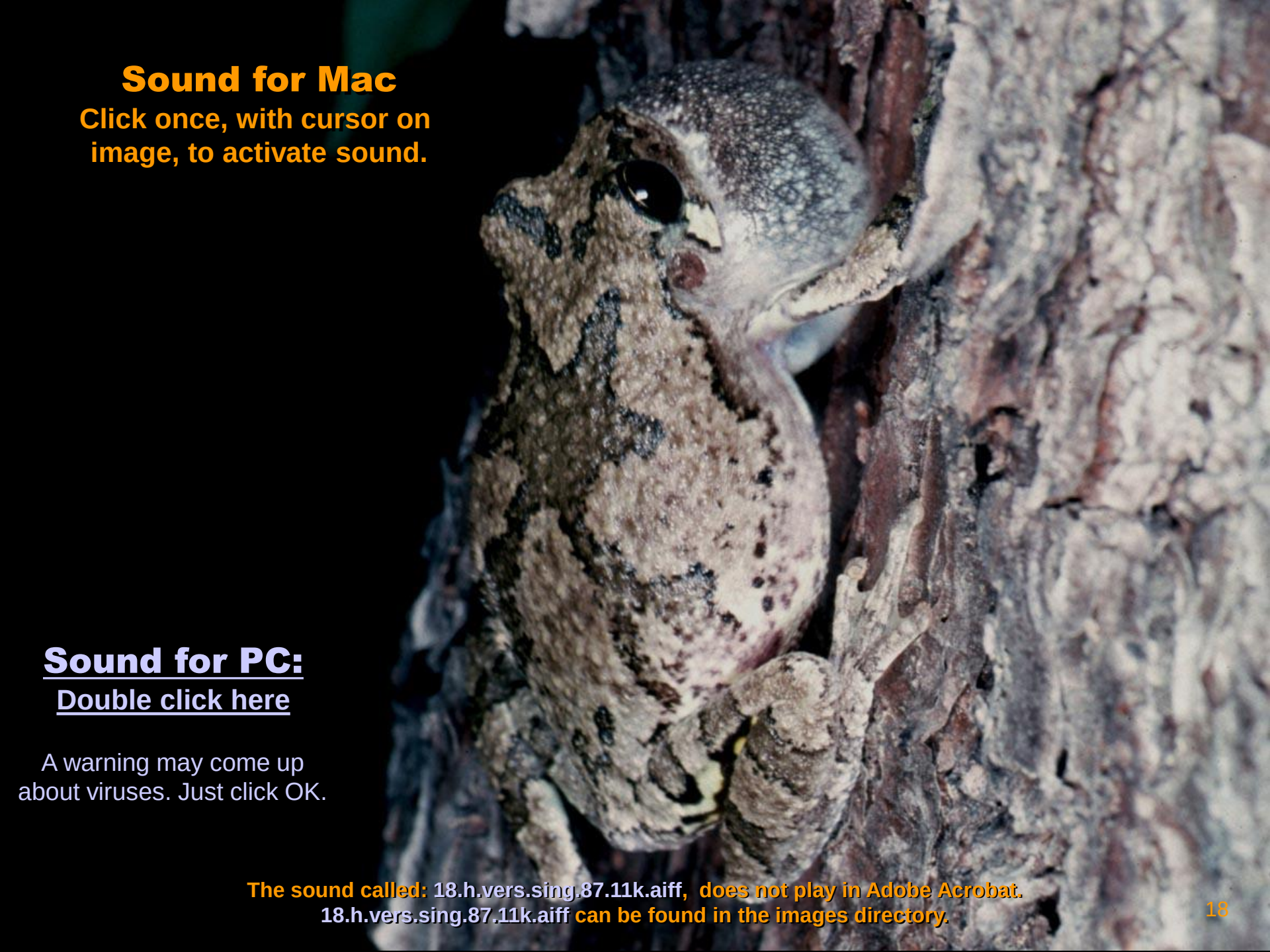

Sound for Mac

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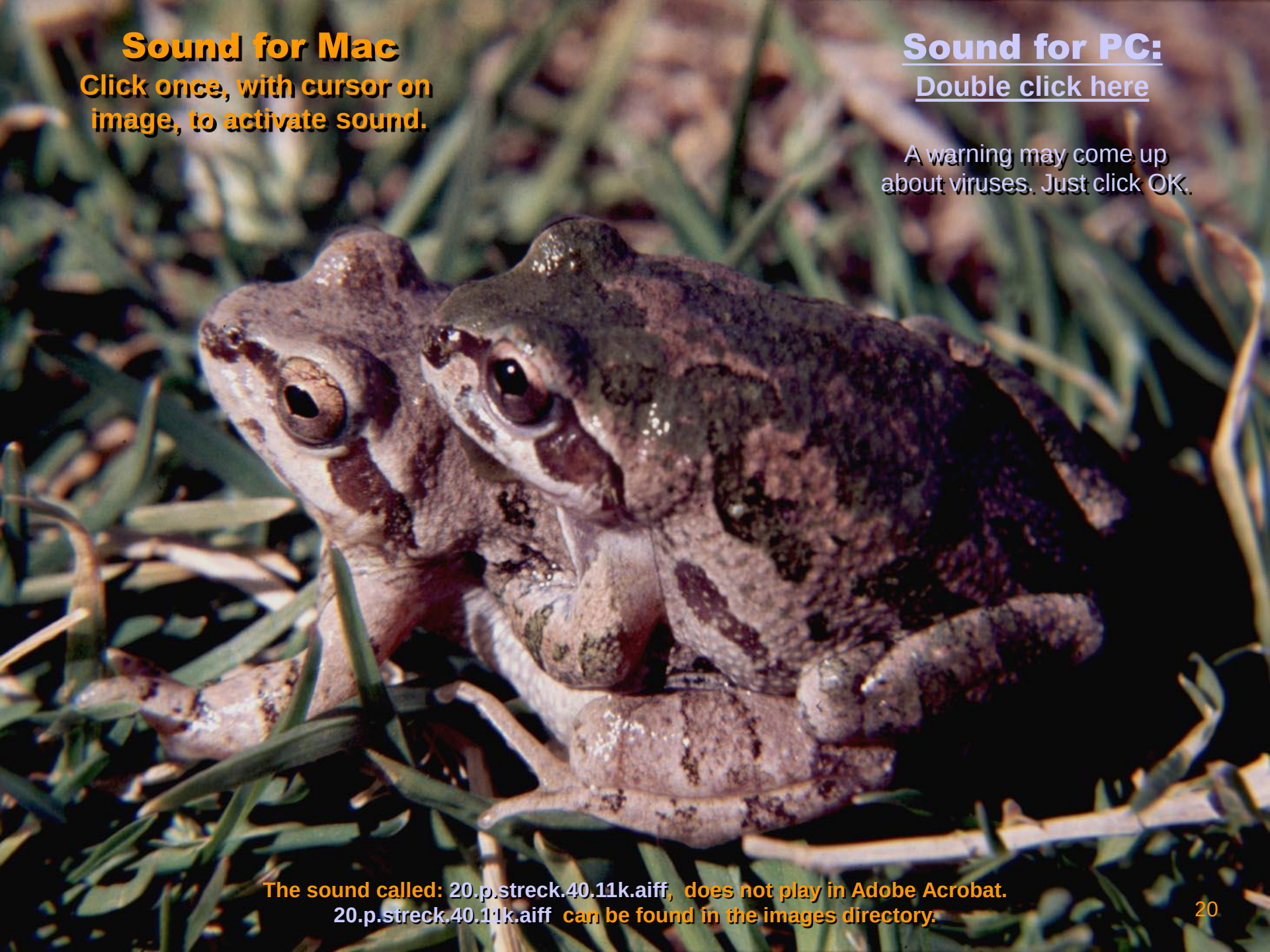

Sound for Mac

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Sound for PC:

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Sound for Mac

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Sound for Mac

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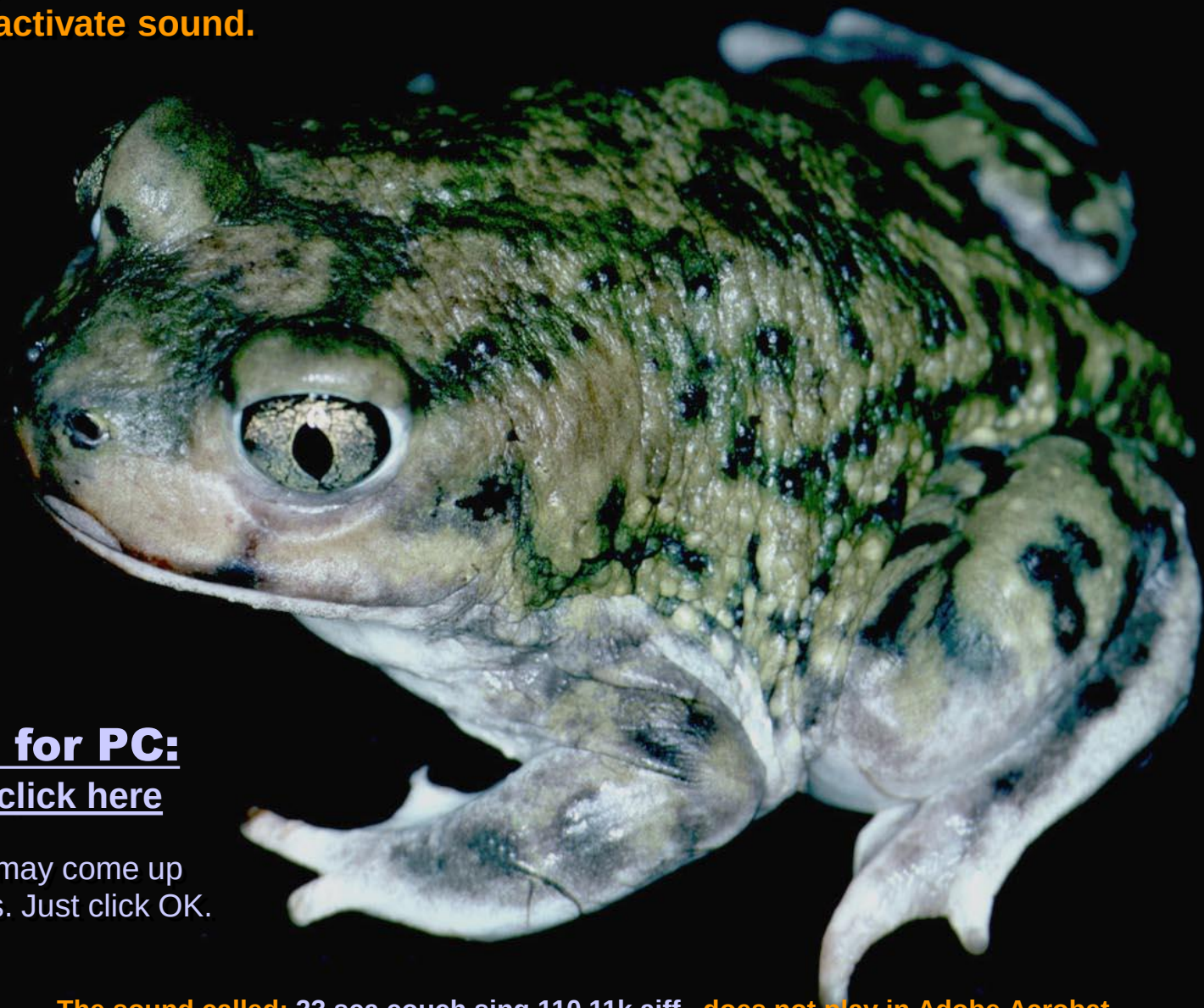

Sound for PC:

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The sound called: 23.sca.couch.sing.110.11k.aiff, does not play in Adobe Acrobat.
23.sca.couch.sing.110.11k.aiff can be found in the images directory.

Sound for Mac

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Sound for PC:

Double click here

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The sound called: 24.r.spheno.sing.87.11k.aiff, does not play in Adobe Acrobat. 24.r.spheno.sing.87.11k.aiff can be found in the images directory.

Sound for Mac

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Sound for PC:

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A warning may come up about viruses. Just click OK.

The sound called: 25.r.clam.sing.112b.11k.aiff, does not play in Adobe Acrobat. 25.r.clam.sing.112b.11k.aiff can be found in the images directory.

Sound for Mac

Click once, with cursor on image, to activate sound.

Sound for PC:

Double click number next to image, to activate sound.

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Caves and Springs

Devil’s Sinkhole

Honey Creek Cave


8
9
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12
13
14
18

Degradation of Rivers

Introduced Species

Effects of Agriculture

What can you do to help?

Habitat Destruction

- *Support low-impact development*
- *Help direct development away from environmentally sensitive areas*
- *Support nature preserves*
- *Support family planning*

What can you do to help?

Habitat Protection

What can you do to help?

Water Use: Loss of Aquifers & Springs

- *Conserve water*
- *Use rainwater irrigation*
- *Re-use gray water for irrigation*
- *Support and practice xeriscaping*

What can you do to help?

Water Degradation/Water Pollution

- *Proper disposal of toxic materials: storm drains are only for water*
- *Reduce use of pesticides, herbicides and fertilizers*
- *Careful planning, location and management of reservoirs*

What can you do to help?

Introduced Species

- *Do not import or release exotic plants or animals*

- *Do not release ex-pets (especially aquarium plants and animals)*

What can you do to help?

Agriculture

- *Support smart agriculture: crop rotation, polyculture, biocontrol, etc.*

- *Support alternative tax exemptions for wildlife management*

- *Support low-impact, sustainable use alternatives for sensitive areas: habitat preserved for game species protects non-game as well*

Acknowledgements

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Dr. David Hillis

David Hillis was born in Copenhagen, Denmark, but spent his formative years in tropical Africa and India. In this environment, Hillis learned a love of biology, entertaining himself by making collections of butterflies, amphibians, and reptiles. Hillis received his B.S. degree (with honors) from Baylor University in 1980, and M.A., M.Ph. and Ph.D. (all with honors) from The University of Kansas in 1983, 1984, and1985, respectively. After two years on the faculty at the University of Miami, he joined the Department of Zoology at UT Austin in 1987 and was awarded a prestigious National Science Foundation Presidential Young Investigator Award the same year. In1992, he was appointed to the Alfred W. Roark Centennial Professorship in Natural Sciences, and in 1998 became the first Director of the School of Biological Sciences at the University of Texas-Austin. In 1999, Hillis was one of 32 people chosen to receive a prestigious MacArthur Foundation fellowship, known informally as the "genius award".

David Hillis' research interests span much of biology, from development of statistical and computational methods for analyzing DNA sequences, to molecular studies of viral epidemiology, to studies of the diversity and phylogeny of life (particularly vertebrates), to the origin and behavior of unisexual organisms. He has published over 130 scholarly articles and two technical books, and has served as Editor or Associate Editor of a dozen scientific journals. He is an active member of many scholarly societies and national research panels, and has served as the President of the Society of Systematic Biologists. In the past decade, the 23 graduate students and 12 postdocs in his laboratory have produced an additional 120 independent scholarly articles.