



The University of Texas at Austin
Environmental Science Institute

Hot Science - Cool Talk # 9

***Hotspot of Biodiversity:
Unique and Endangered
Animals of Central Texas***

**Dr. David Hillis
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Hotspot of Biodiversity:

Unique and
Endangered
Animals of
Central Texas

Dr. David M. Hillis





Lost Biodiversity



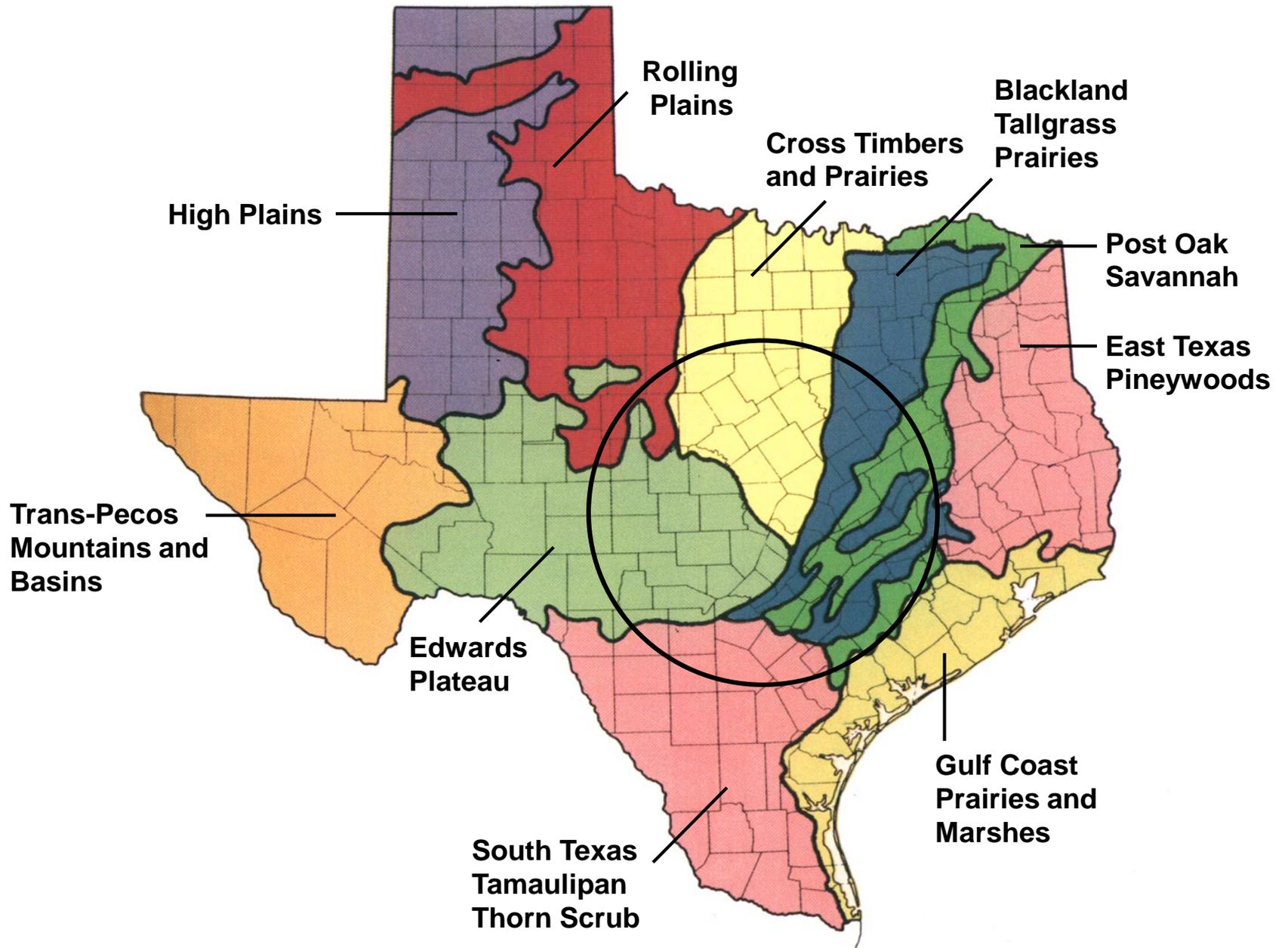


Endangered Species

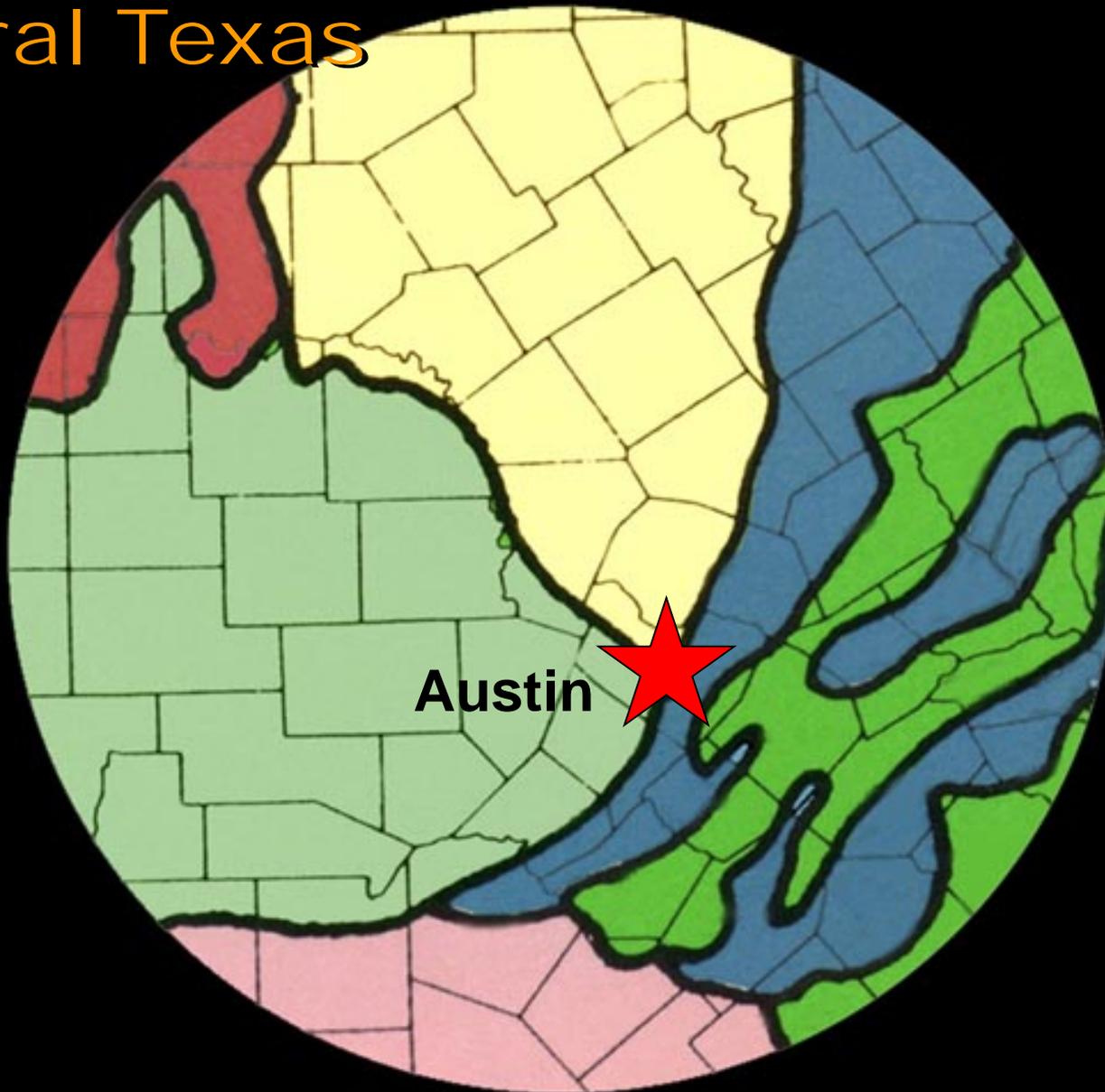


New Discoveries





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:
Double click here

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

The sound called: 16.b. vall.sing.85.11k.aiff, does not play in Adobe Acrobat.
16.b. vall.sing.85.11k.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 here

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

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17.b.wood.wood.85.11k.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 here](#)

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18.h.vers.sing.87.11k.aiff can be found in the images directory.





Sound for Mac
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image, to activate sound.

Sound for PC:
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19.p.darkii.55b.11k.aiff can be found in the images directory.



Sound for Mac

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Sound for PC:

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**The sound called: 20.p.streck.40.11k.aiff, does not play in Adobe Acrobat.
20.p.streck.40.11k.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 here

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

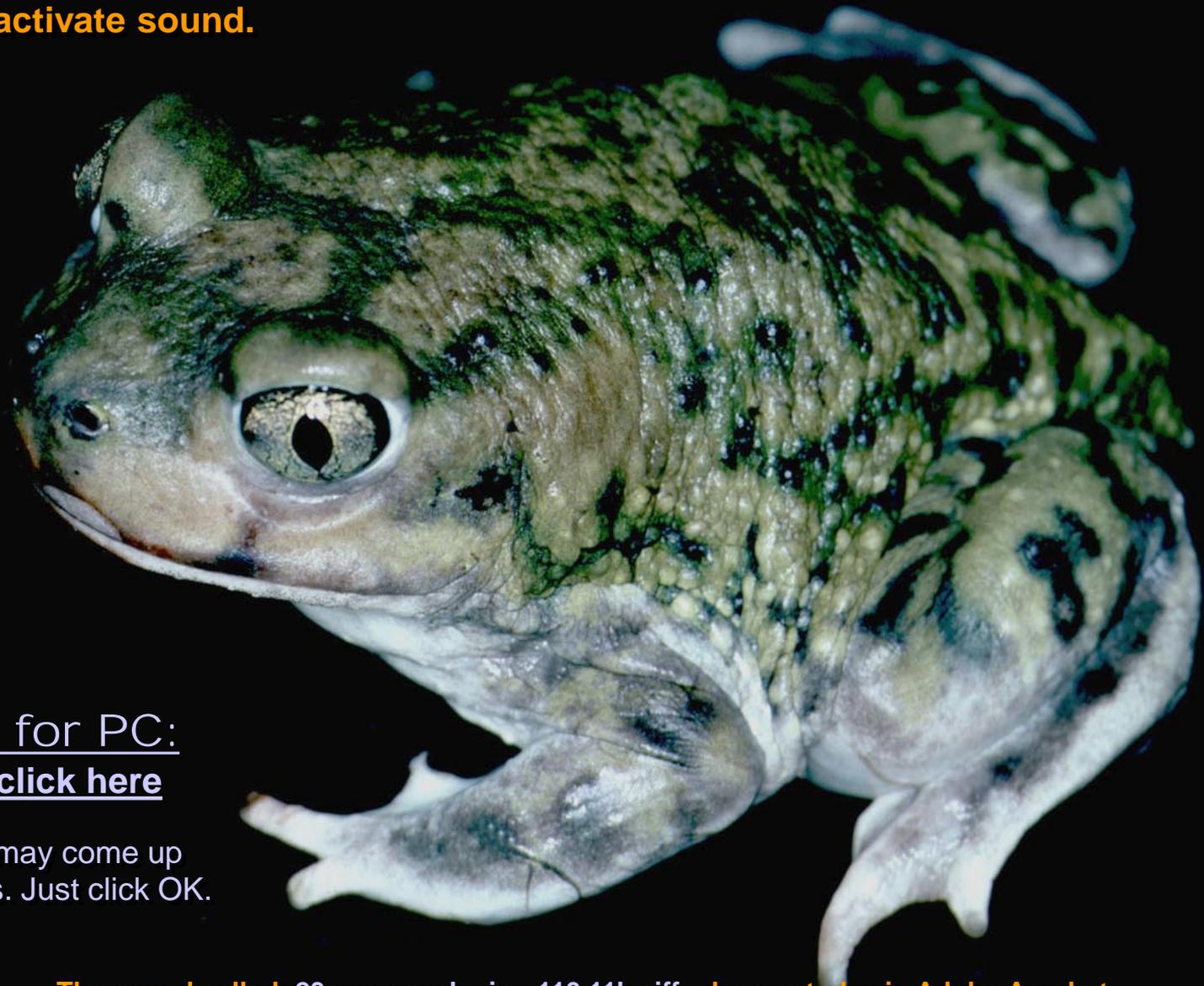
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21.gas.oliv.sing.55b.11k.aiff can be found in the images directory.





Sound for Mac

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



Sound for PC:

[Double click here](#)

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

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
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: 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
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: 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.



2



3



4



5



1



9



10



6



8



7

Caves and Springs





Devil's Sinkhole



Honey Creek Cave



















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, and 1985, 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. In 1992, 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.