

# Planet Diversity — Activity #9



## TEKS:

Science  
4.2 B, C, D, E, F  
4 A  
5.4 A  
5.2 C, D, E, F  
5.10 A  
6.2 C, D, E  
6.4 A  
6.12 E  
7.10 B

## Language Arts

4.1 A, C  
4.2 A  
4.5 B  
4.13 A-H  
5.1 A, B, C  
5.2 A, B, C, D  
5.12 A  
5.25 A, B  
6.17 A, D  
6.23 A, B, C, D  
6.23 A, B, C  
7.17 D

## Resources:

[www.texasep.org/html/wld/wld\\_3pna.html](http://www.texasep.org/html/wld/wld_3pna.html)

[www.texasinvasives.org/](http://www.texasinvasives.org/)

[www.tpwd.state.tx.us/huntwild/wild/species/](http://www.tpwd.state.tx.us/huntwild/wild/species/)

[www.tpwd.state.tx.us/huntwild/wild/species/endang/](http://www.tpwd.state.tx.us/huntwild/wild/species/endang/)

[www.endangeredspecie.com/states/tx.htm](http://www.endangeredspecie.com/states/tx.htm)

[www.texasento.net/biod.htm](http://www.texasento.net/biod.htm)

[www.epa.gov/wed/pages/ecoregions/tx\\_eco.htm](http://www.epa.gov/wed/pages/ecoregions/tx_eco.htm)

[www.eoearth.org/article/Ecoregions\\_of\\_Texas\\_\(EPA\)](http://www.eoearth.org/article/Ecoregions_of_Texas_(EPA))

## Texas Overview:

If you want to see biodiversity in both small-scale microhabitats and large-scale macrohabitats, then looking at Texas is the way to go.

If visitors from Planet Deevoid landed in Texas, they would find a unique place, rich in its diversity of plant and animal species.

Texas is rich in biodiversity because of its wide variety of ecosystems. Texas Parks & Wildlife has identified 10 different ecosystems in Texas and each is rich in its plant and animal variety. This rich biodiversity adds value to the ecosystems. Genetic diversity and interaction among all living things keeps our ecosystems healthy and thriving.

Aliens from the Planet Deevoid would think they had landed on 10 different planets if they had the opportunity to land in each of the state's different ecosystems. Each ecosystem has different macrohabitats and microhabitats with species unique to that area.

NatureServe issued States of the Union: Ranking America's Biodiversity in April 2002 and the report recognized the following facts about Texas:

1. Texas has the second greatest biodiversity in the nation.
2. Texas is third when looking at the number of species found only in that state.
3. More than 126 species of vertebrates are found only in Texas.
4. Texas has 5,500 plant species with 425 of those found only in Texas.
5. Texas ranks at the very top in the nation when it comes to the number of different bird species of birds.
6. The state has an estimated 25,000 to 30,000 different species of insects, though no one is sure of the exact number.
7. The state has 161 species on its endangered or threatened list. Some species on the state list aren't on the federal list.
8. The invertebrates found only in Texas include the following number of species in each group: 11 Arachnids, one Crustacean, 44 Insects and seven Mollusk.

Unfortunately, Texas also has high numbers of endangered and threatened species. Many of the animals and plants that are recognized nationally as being part of an endangered or threatened species are found in Texas. Some species on the list live *only* in Texas. When plant and animal populations go down, it leads to a decrease in biodiversity for a particular area. Loss of habitat is the top cause threatening the state's biodiversity today.

Species	Number found only in Texas	Number on Texas' Endangered List 03/02	Number on Texas' Threatened List (03/02)	Number on Federal Endangered/Threatened List
<b>Amphibians</b>	16	3	10	4
<b>Birds</b>	56	14	20	15
<b>Fishes</b>	35	8	22	12
<b>Mammals</b>	34	12	20	14
<b>Plants</b>	32	23	5	25
<b>Reptiles</b>	27	3	21	6
<b>Invertebrates</b>	63	2		21
<b>Total</b>	<b>263</b>	<b>65</b>	<b>98</b>	<b>97</b>

Source: Texas Parks and Wildlife Department

### **When is biodiversity bad?**

Biodiversity is bad when non-native or alien species come in and compete with native species for habitat resources. As of February 2003, 122 non-native species — invertebrates, plants, mammals, birds and fish — had invaded Texas and research indicates more have since invaded. See Project Learning Tree's *Invasive Species activity* to learn more about this problem.