



# Beetle Appreciation

## Diversity and Classification of Common Beetle Families

Christopher E. Carlton

Louisiana State Arthropod Museum

# Coleoptera Families Everyone Should Know

## (Checklist)

### Suborder Adephaga

- Carabidae
- Dytiscidae
- Gyrinidae

### Suborder Polyphaga

#### Superfamily Staphylinoidea

- Ptiliidae
- Silphidae
- Staphylinidae

#### Superfamily Hydrophiloidea

- Hydrophilidae
- Histeridae

### Suborder Polyphaga, cont.

#### Superfamily Scarabaeoidea

- Lucanidae
- Passalidae
- Scarabaeidae

#### Superfamily Buprestoidea

- Buprestidae

#### Superfamily Byrrroidea

- Heteroceridae
- Dryopidae

- Elmidae

#### Superfamily Elateroidea

- Elateridae

# Coleoptera Families Everyone Should Know

(Checklist, cont.)

Suborder Polyphaga, cont.

Superfamily Cantharoidea

- Lycidae
- Cantharidae
- Lampyridae

Superfamily Bostrichoidea

- Dermestidae

Bostrichidae

- Anobiidae

Superfamily Cleroidea

- Cleridae

Suborder Polyphaga, cont.

Superfamily Cucujoidea

- Nitidulidae
- Silvanidae
- Cucujidae
- Erotylidae

- Coccinellidae

Superfamily Tenebrionoidea

- Tenebrionidae
- Mordellidae
- Meloidae
- Anthicidae

# Coleoptera Families Everyone Should Know

(Checklist, cont.)

Suborder Polyphaga, cont.

Superfamily Chrysomeloidea

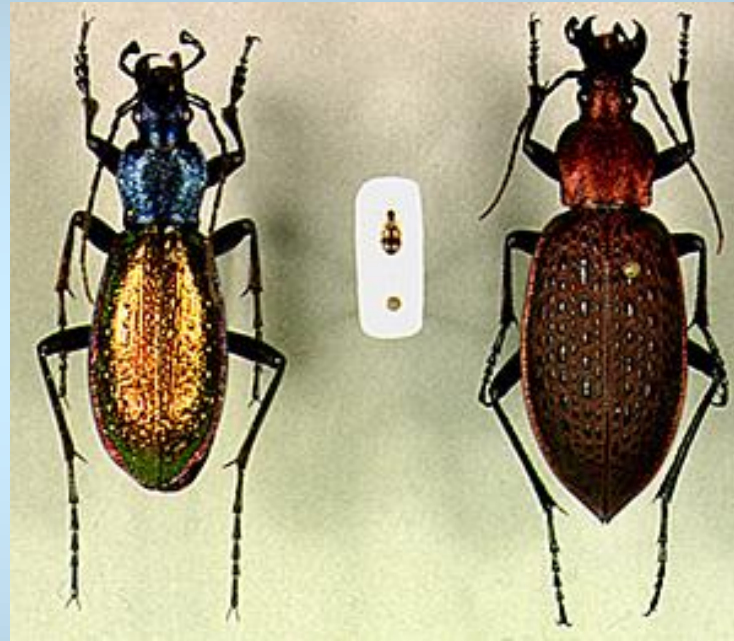
- Chrysomelidae
- Cerambycidae

Superfamily Curculionoidea

- Brentidae
- Curculionidae

Total: 35 families of 131 in the U.S.

Suborder Adephaga  
Family Carabidae  
“Ground and Tiger Beetles”



Terrestrial predators or  
herbivores (few). 2600 N. A.  
spp.

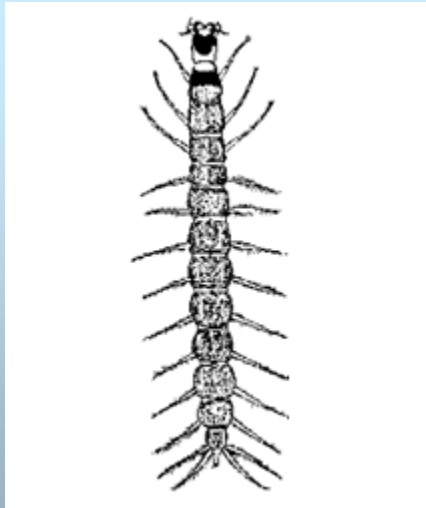
Suborder Adephaga  
Family Dytiscidae  
“Predacious diving beetles”



Adults and larvae  
aquatic predators.  
500 N. A. spp.



Suborder Adephaga  
Family Gyrinidae  
“Whirligig beetles”

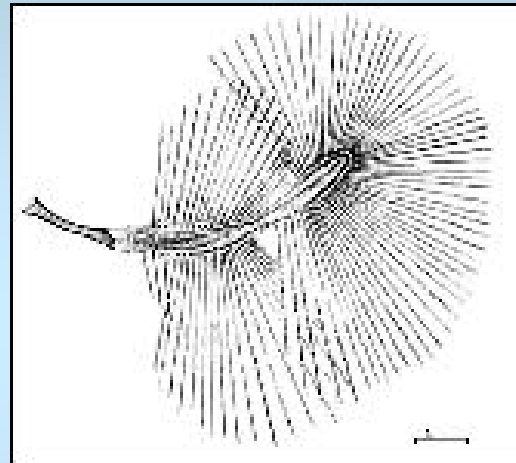


Aquatic, on water surface.  
Adults weak  
predators/scavengers, larvae  
predaceous. 56 N.A. spp.

Suborder Polyphaga\*  
Family Ptiliidae  
“Featherwinged beetles”



[www.zin.ru/.../Coleoptera/  
images/pteforkm.jpg](http://www.zin.ru/.../Coleoptera/images/pteforkm.jpg)



Adults and larvae  
fungivorous. 117 N.A. spp.



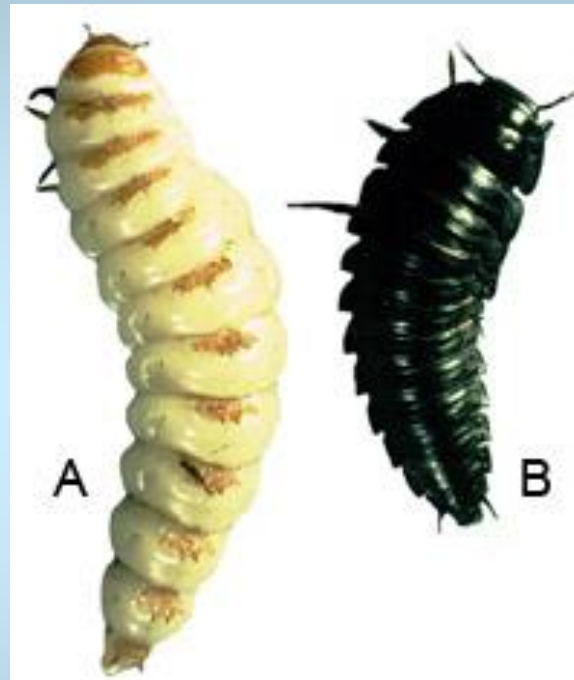
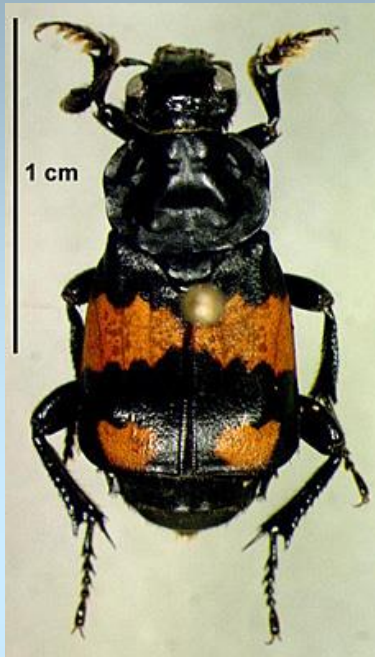
[tolweb.org/tree/ToLimages/  
acrotichine.gif](http://tolweb.org/tree/ToLimages/acrotichine.gif)

\*all families from this point belong  
to this suborder



# Family Silphidae

“Carrion and sexton beetles”



Scavengers and/or predators or herbivores (few). 30 N.A. species

# Family Staphylinidae

“Rove and short-winged mold beetles”



Predators, fungivores, and parasitoids (few). 4200 N.A. spp.



# Family Hydrophilidae

## “Water scavenger beetles”



Larvae predaceous, adults scavengers, aquatic or semiaquatic. 284 N.A. spp.



Family Histeridae  
“Hister beetles”



Predators or adapted  
to life with social  
insects. 440 N.A.  
spp.



## Family Lucanidae “Stag beetles”



© Copyright MS State



Saproxylic (wood  
inhabiting) fungivores  
as larvae. Adults  
typically do not feed.  
24 N.A. spp.

Family Passalidae  
“Bess bugs, betsy bugs,  
patent leather beetle”



Saproxylic fungivores.  
1 eastern species.

# Family Scarabaeidae “Scarabs”



Phytophagous (most) or  
scatophagous. 1400  
N.A. spp.

# Family Buprestidae

“Metallic wood boring beetles”



Larvae feed on live, dead, or dying wood. Adults pollen or fluids.



# Family Elateridae

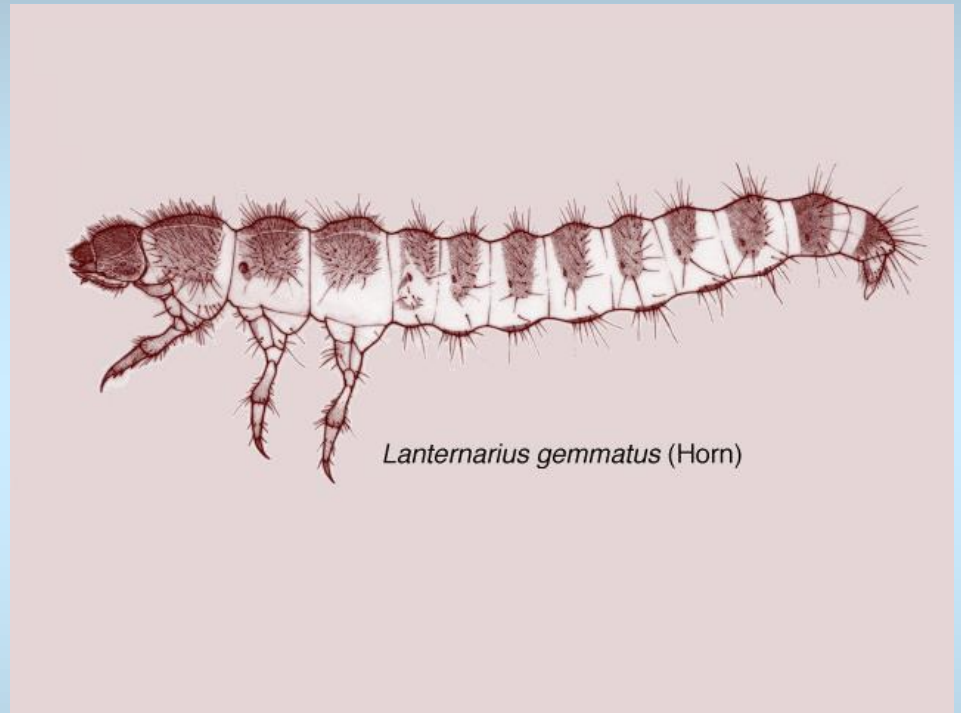
## “Click beetles”



Larvae  
predatory or  
herbivorous.  
Adults feed on  
fluid or pollen.  
965 N. A. spp.

# Family Heteroceridae

## “Mud-loving beetles”



Aquatic grazers. 34  
N.A. species.



Family Dryopidae  
“Long-toed water beetles”

Aquatic grazers. 13 N.A. spp.

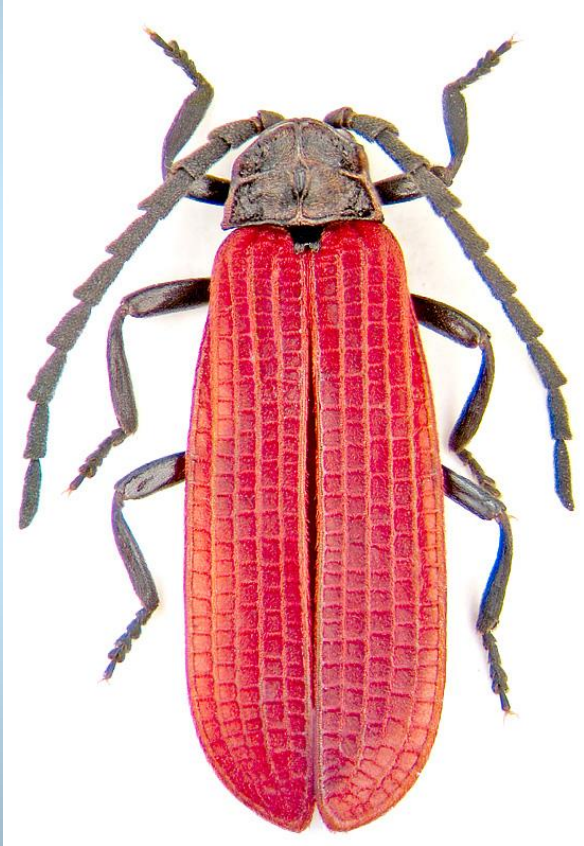
Family Elmidae  
“Riffle beetles”



Aquatic grazers. 85 N.A. spp.

# Family Lycidae

“Net-winged beetles”



Larvae predatory or perhaps fungivorous in forest litter. Adults feed on fluids. 76 N.A. spp.

# Family Cantharidae “Soldier beetles”



Larvae predatory in forest litter. Adults feed on pollen or fluids. 473 N.A. spp.

# Family Lampyridae

“Fireflies, lightningbugs”



Many species  
bioluminescent.  
Predators. 125  
N.A. spp.

# Family Dermestidae

## “Carpet, hide beetles”

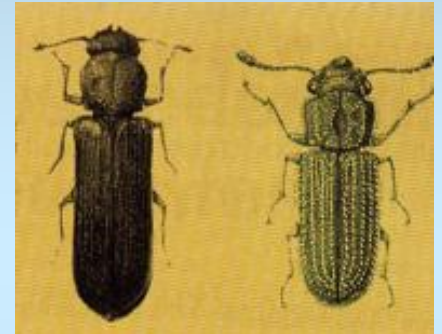
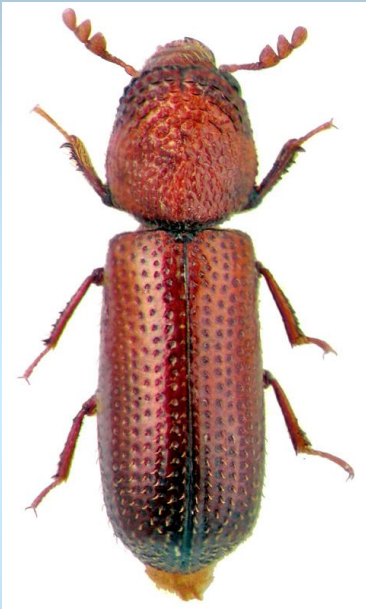


Scavengers of protein-rich or starchy substances. 123 N.A. spp.



# Family Bostrichidae

“Twig borers and powderpost beetles”



Most feed on wood, some on stored products. 71 N.A. spp.

# Family Anobiidae

“Deathwatch, furniture and spider beetles”



Scavengers on many dry substrates;  
also in dry wood. 470 N.A. spp.

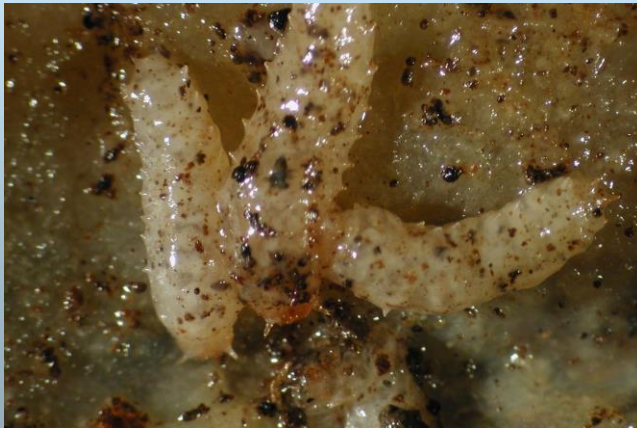


## Family Cleridae “Checkered beetles”



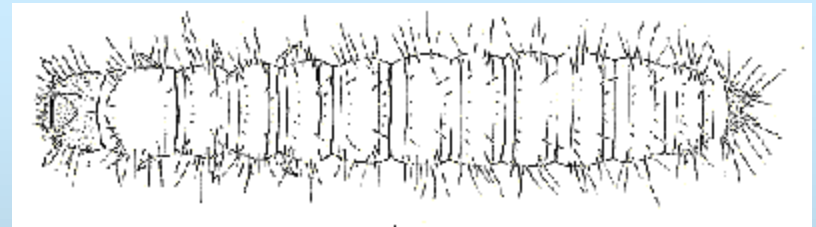
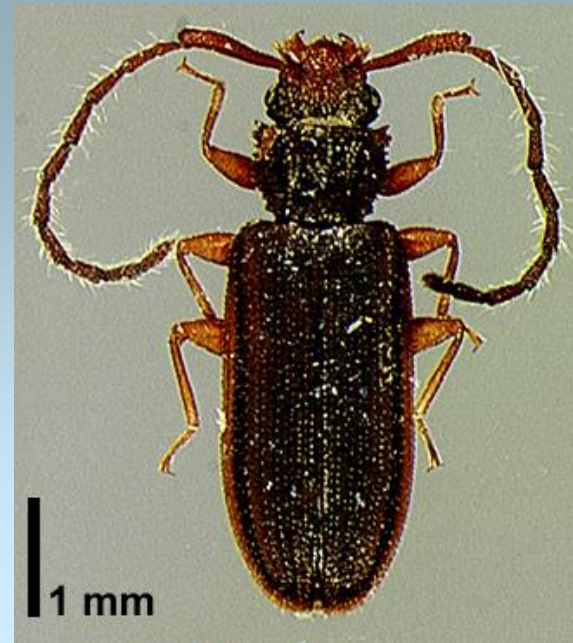
Predators or scavengers of  
proteins (few). 291 N.A.  
spp.

# Family Nitidulidae “Sap beetles”



Fungivores or on in  
nutrient rich fluids,  
predatory (few),  
herbivorous (few).  
183 N.A. spp.

Family Silvanidae  
“Flat grain beetles”



Fungivores or scavengers  
of starches. 32 N.A. spp.

Family Cucujidae  
“Flat bark beetles”



Predators under bark. 3  
N.A. spp.



## Family Erotylidae “Pleasing fungus and lizard beetles”



Photo: courtesy of Mark Farmer



Fungivorous or  
herbivorous (few). 50  
N.A. spp.

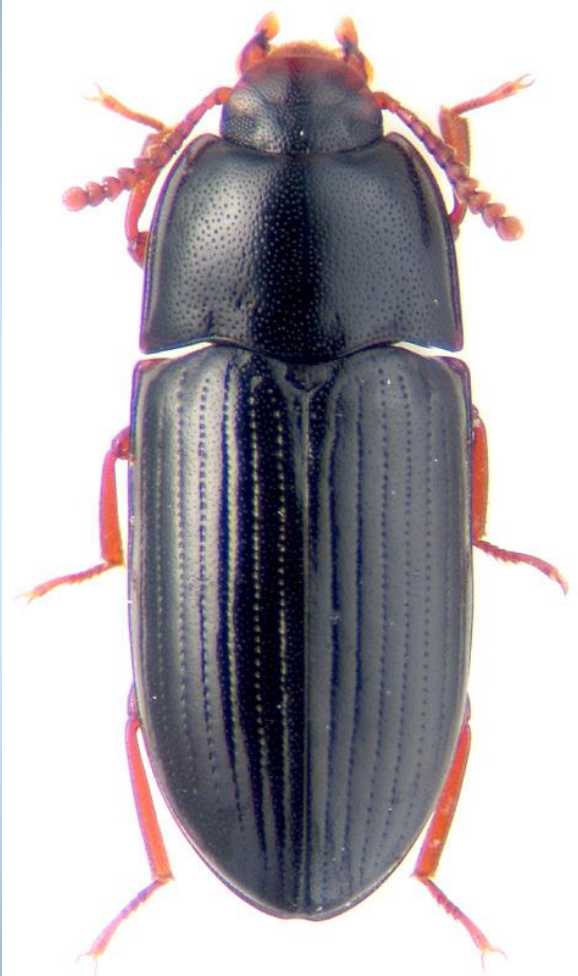
# Family Coccinellidae “Lady beetles”



Predators and  
herbivores (few).  
475 N.A. spp.



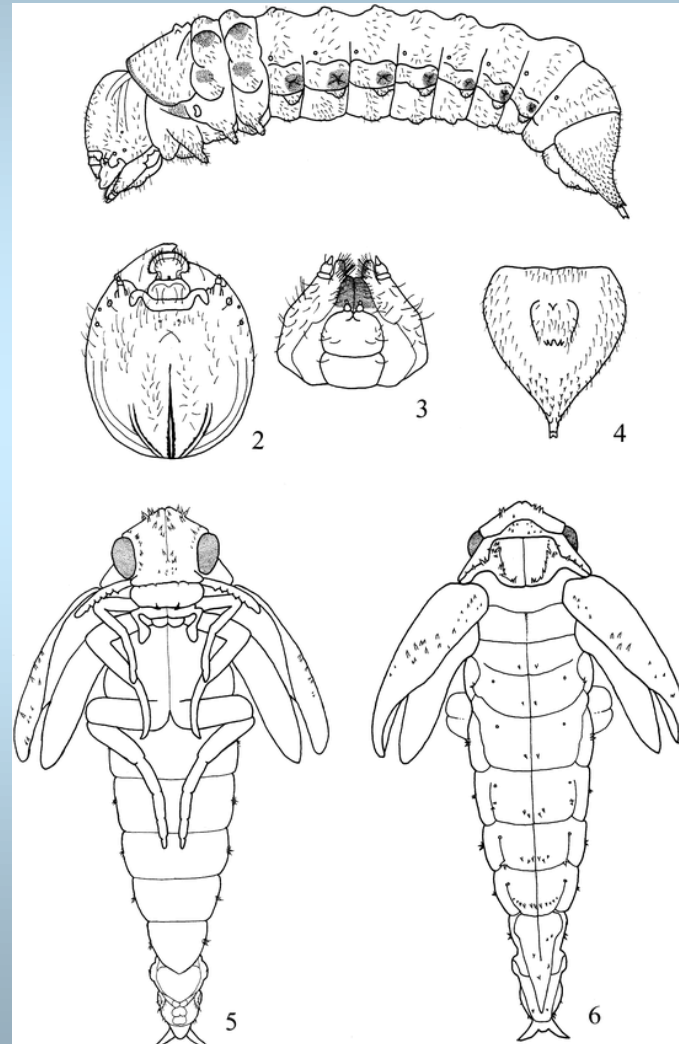
Family Tenebrionidae  
“Darkling and comb-  
clawed beetles”



Scavengers, fungivores,  
starchy substrates. 1000  
N.A. spp.

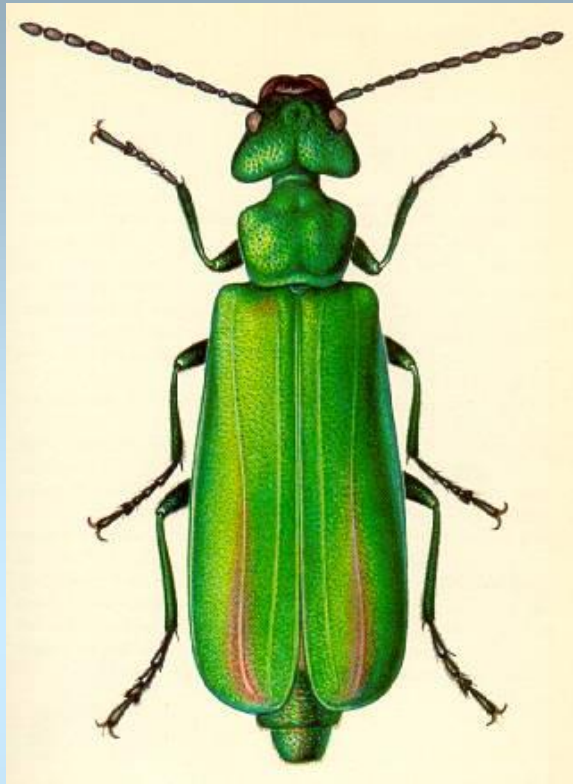
# Family Mordellidae

## “Tumbling flower beetles”



Fungivorous as larvae, pollen feeders as adults.  
200 N.A. spp.





## Family Meloidae “Blister beetles”



Hypermetamorphic  
parasitic larvae,  
herbivorous adults. 400  
N. A. spp.



Family Anthicidae  
“Ant-like stone beetles”



Scavengers in dry habitats.  
232 N. A. spp.



Family Chrysomelidae  
“Leaf beetles and seed  
weevils”



Herbivorous; foliage or in  
seeds (Bruchinae). 1500  
N. A. spp.

# Family Cerambycidae “Long-horned beetles”



Larvae are wood borers, adults on flowers or fluids.  
1000 N. A. spp.

# Family Brentidae “Primitive weevils”



Fungivorous in dead wood  
or inside live plants. 151  
N.A. spp.

# Family Curculionidae

“Weevils, bark and ambrosia beetles”



Feed within plant tissues. 3000+ N. A. spp.



Please note that images used in this presentation are for educational use and are not to be distributed or used in any other context. Thanks.