



LOOKING at the WAYS of NATURE

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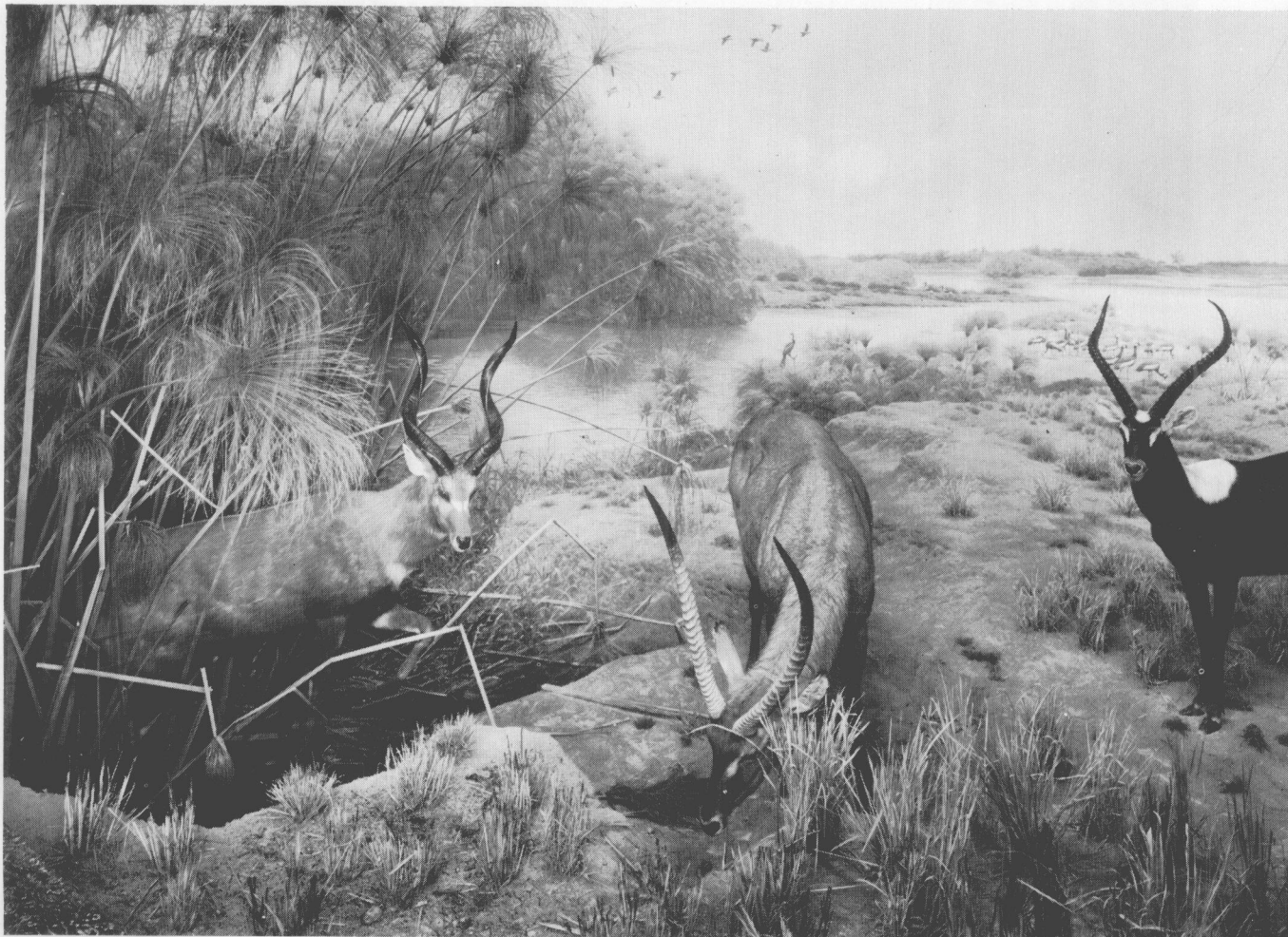
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ABOUT THE BOOK

Living things are made up of:
the animal kingdom
and the plant kingdom.

The first two parts of this book
tell about the animal kingdom.

The third part tells about the plant kingdom.



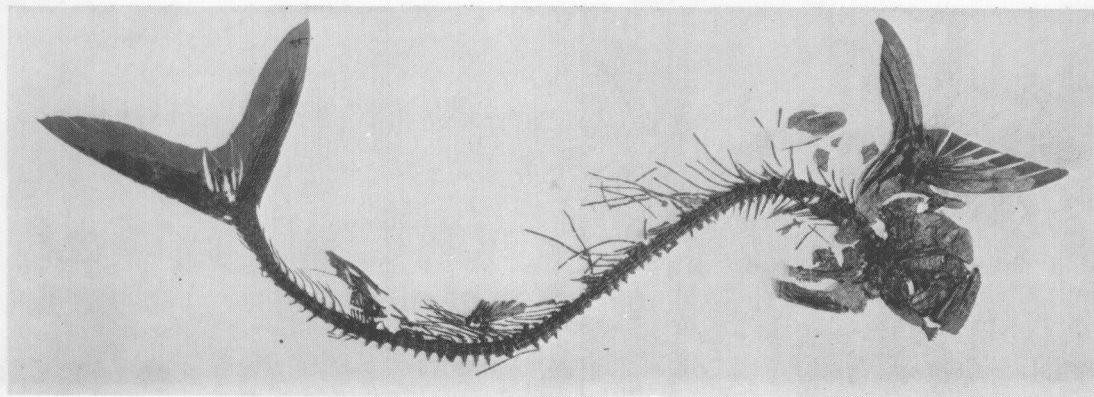
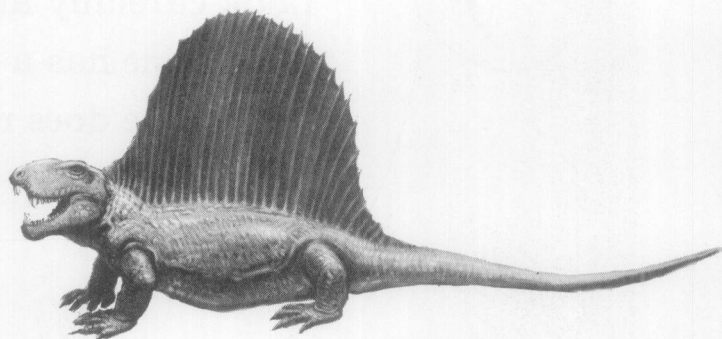
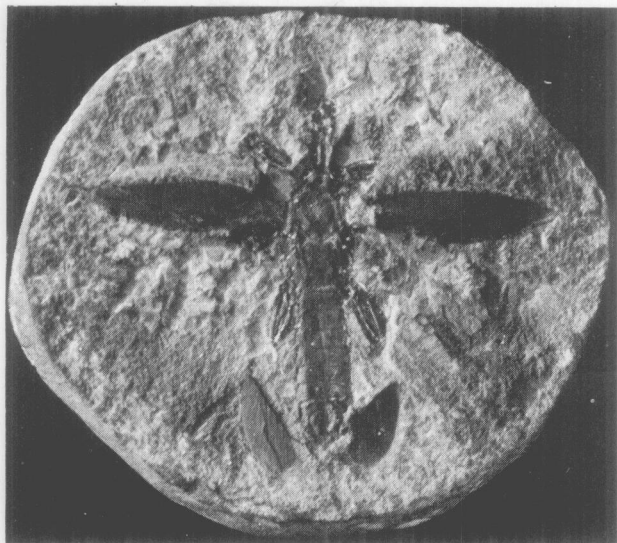
A long time ago, animals
lived only in the sea.

Slowly, some began to move
onto the land.

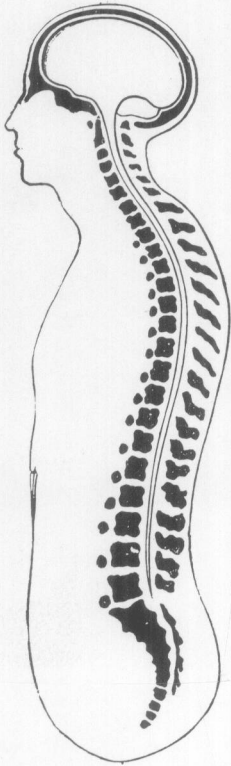
Some of them began to fly.

Some never left the sea.

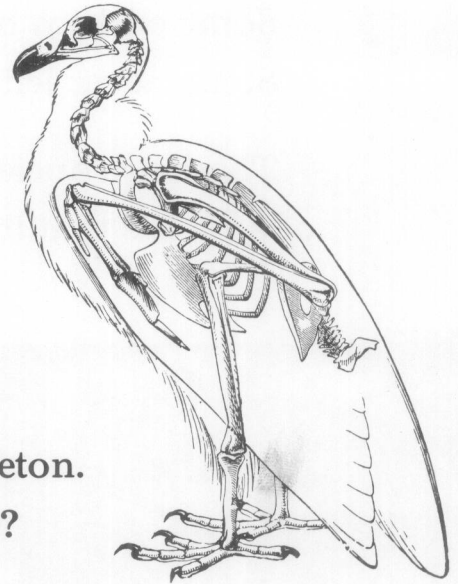
These are ancient relatives
of animals that live today.



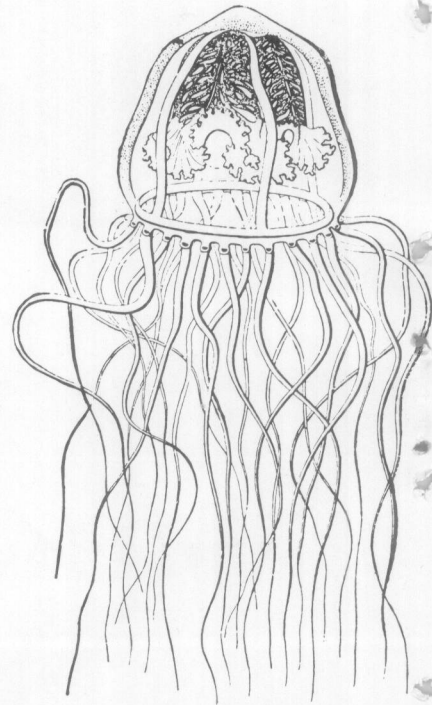
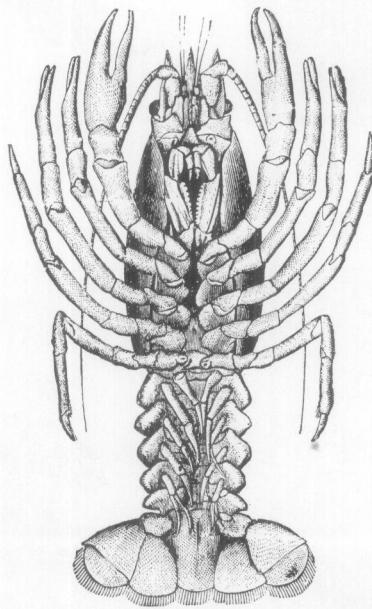
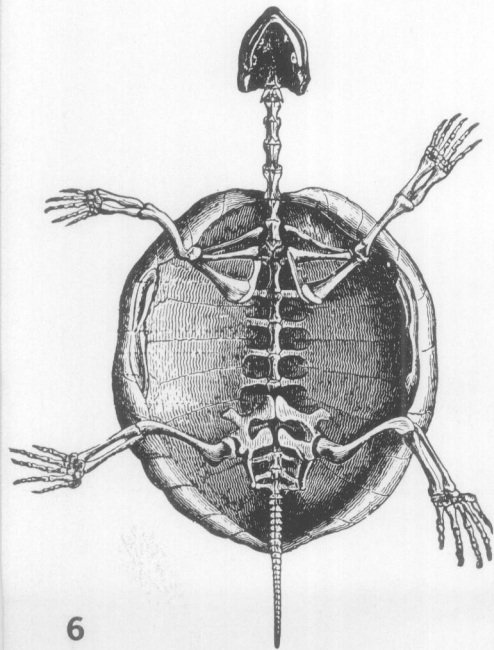
Of all the animals,
there are only two main kinds:
those that have backbones,
and those that do not have backbones.

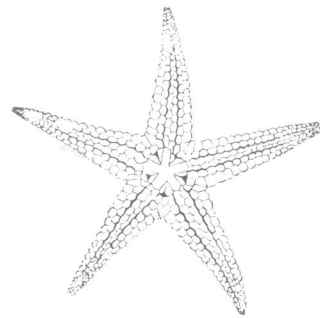
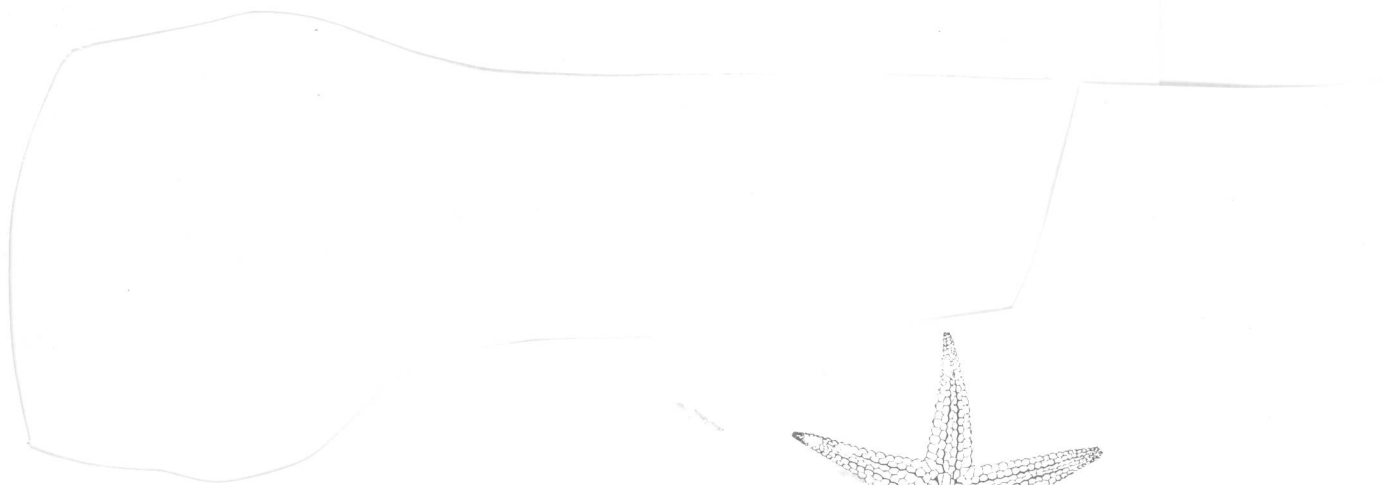


Man has a backbone.



Look carefully at each skeleton.
Which one has a backbone?
Which one does not?





Animals

without Backbones

ANIMALS WITH JOINTED LEGS

None of these animals have backbones
They do not look much alike.
But all of them are relatives.
All of them have jointed legs.

Can you see the joints in this leg?

The fly is an insect.

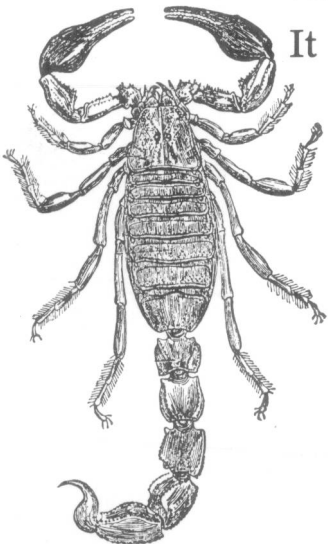
It has six legs.

It has three parts to its body.

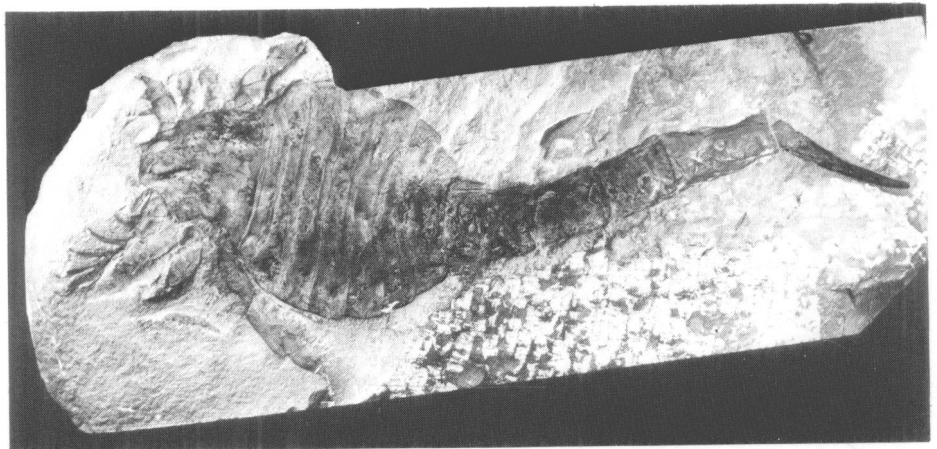


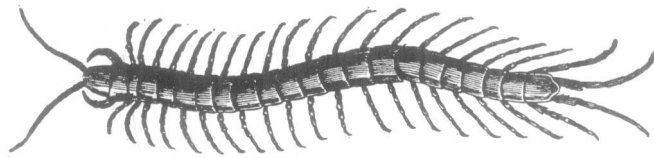
The scorpion has eight legs, too.

It has a long stinger and two claws.



This is a fossil of an ancient sea scorpion.

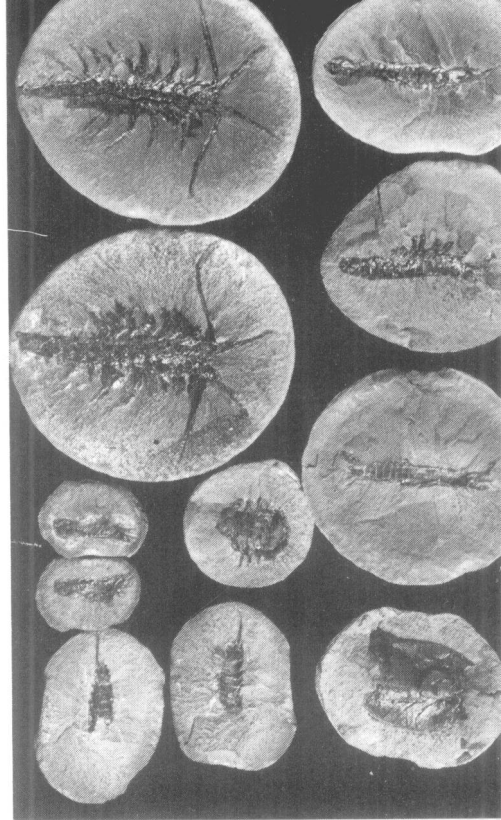




Centipedes and millepedes
have many, many legs.

Their ancient relatives
crawled along sea floors.

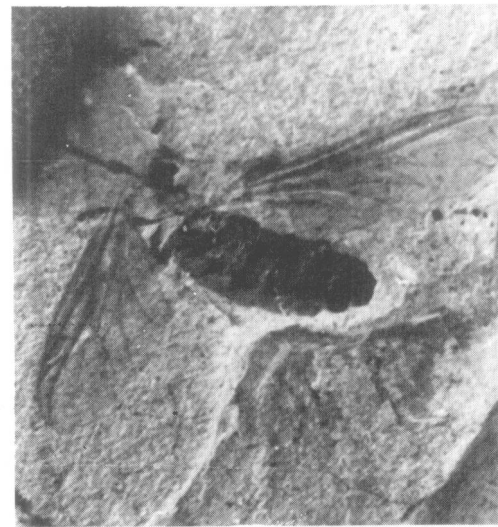
Some lived at the bottom
of rivers and lakes.



These are fossils of their relatives.



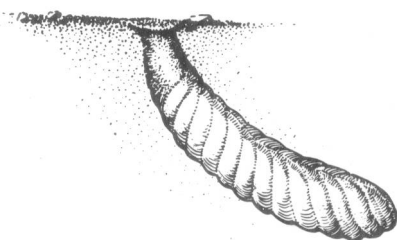
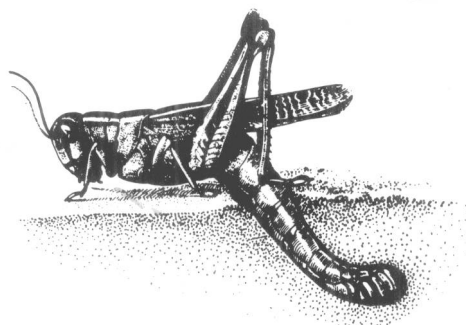
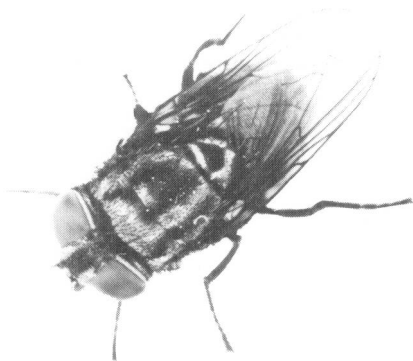
The dragonfly has ancient
relatives, too.



This fossil insect is a relative of insects with wings.

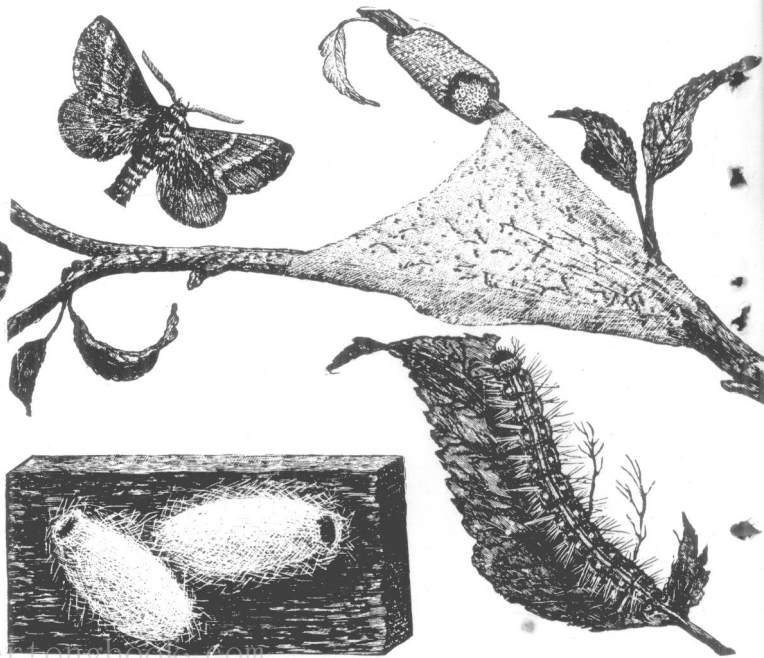
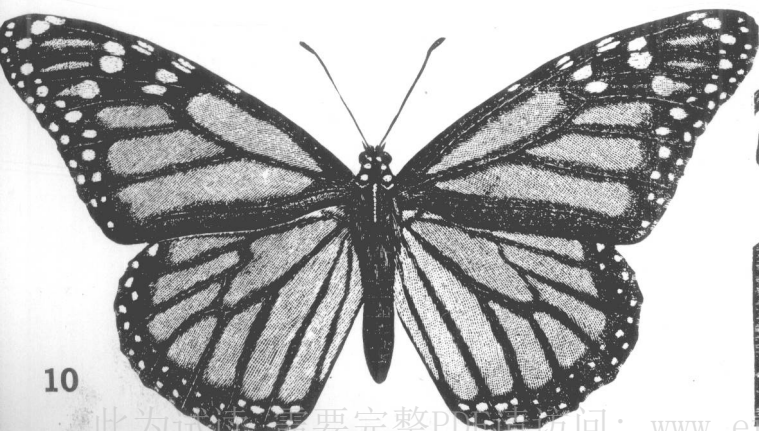


All of these animals lay eggs.
 Out of the eggs of insects
 come little things that look like worms.
 Later these change into grown-up insects.
 A screw worm fly lays many, many eggs.



This grasshopper is laying its eggs
 in a hole in the ground.
 The eggs are in a long sac.

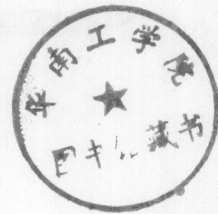
Moths and butterflies
 change many times
 before they grow up.



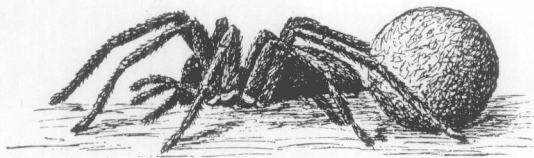
When baby spiders come out of eggs,
they look just like their parents.

They are small at first,
but they grow fast.

Soon they are grown-up spiders.

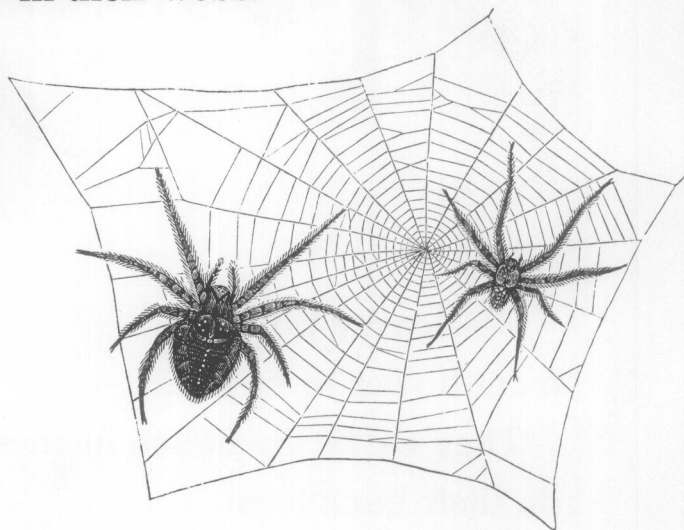


This spider carries its eggs
in a round sac.



A garden spider has left
its eggs in a web.

Spiders may catch insects
in their webs.

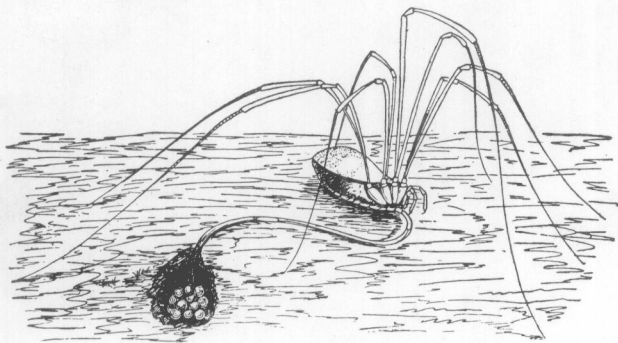


Daddy longlegs lay their eggs
in holes in the ground.

Daddy longlegs look like spiders,
but their legs are longer.

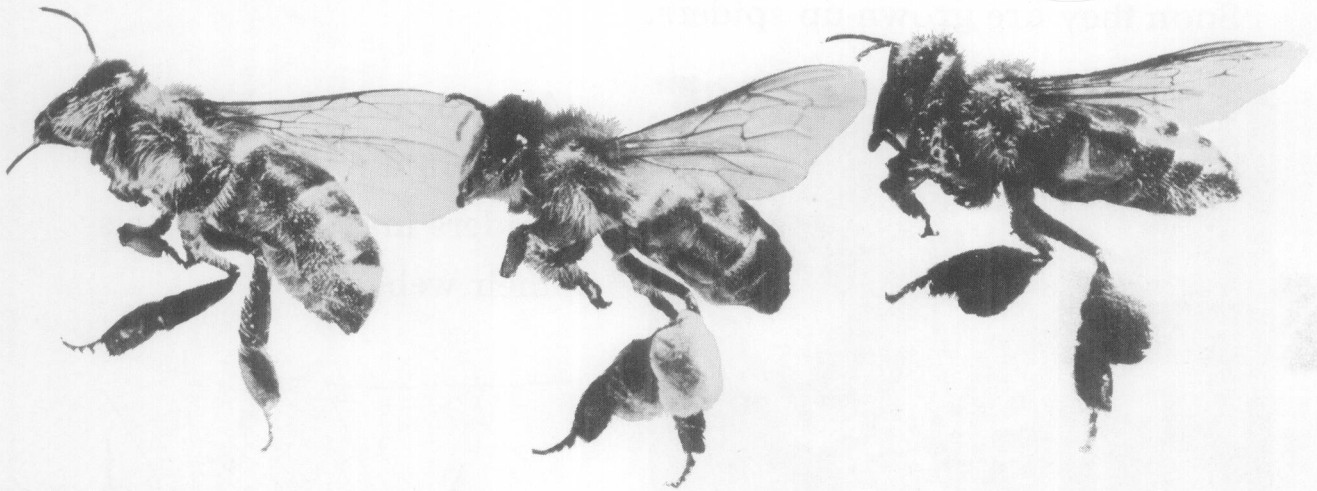
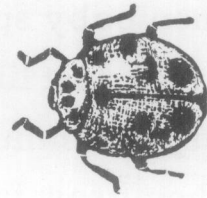
The babies look like their parents.

They shed their skin
when it becomes too small for them.



SOME ANIMALS ARE HELPFUL

Ladybugs eat insects
that might kill plants.



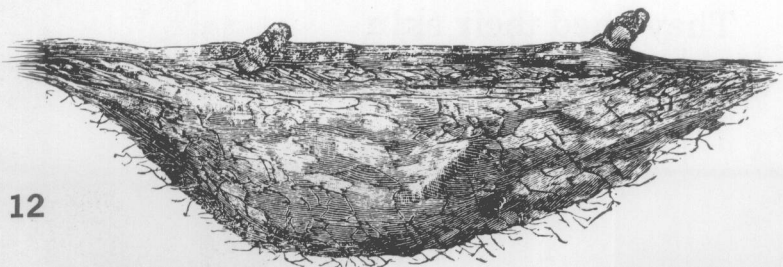
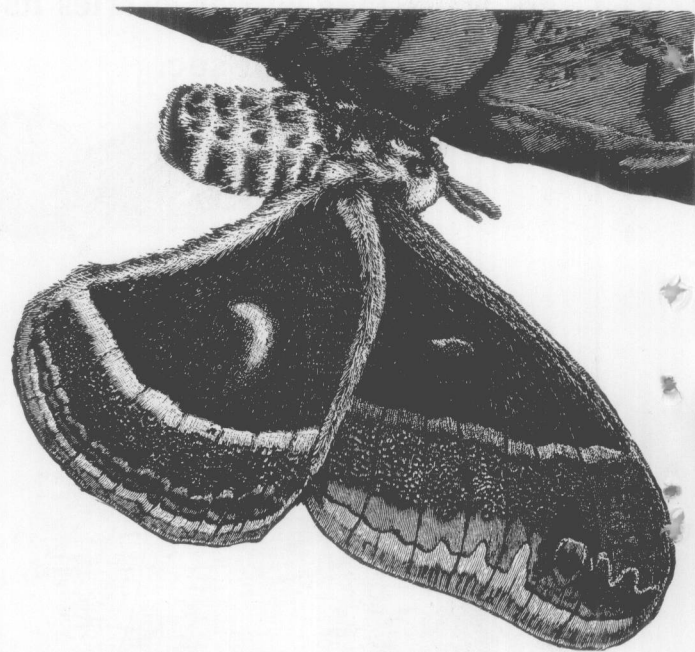
Bees carry pollen
from flower to flower.

They carry the pollen in sacs
on their back legs.

Bees also make honey.

The cocoon of the silkworm moth
is silk.

Fine cloth is spun from this silk.

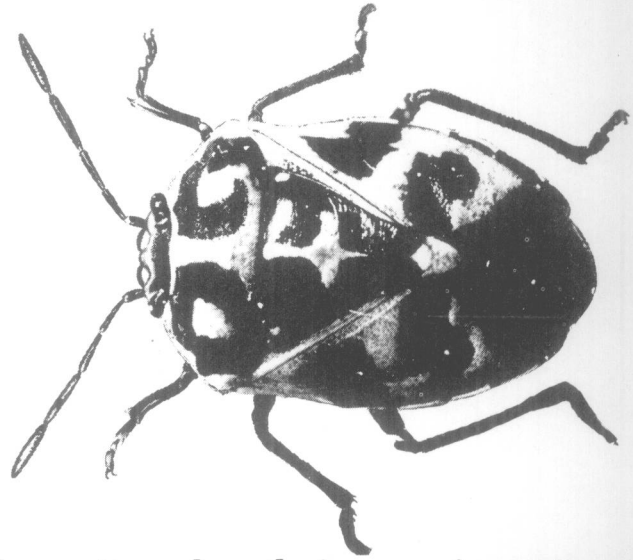
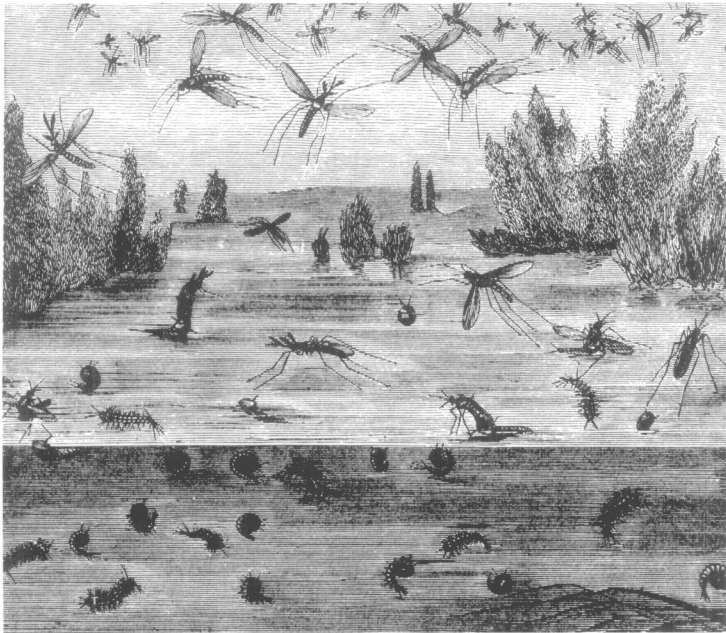


SOME ANIMALS ARE HARMFUL

A caterpillar is eating its way
out of an apple.

Now the apple is not good to eat.

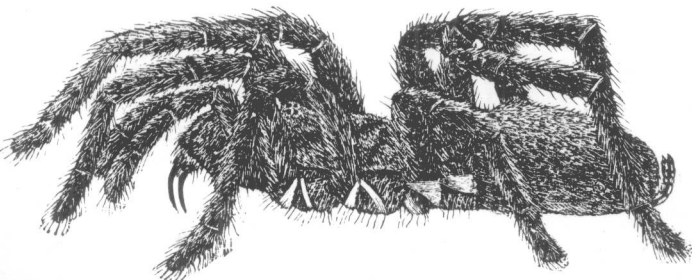
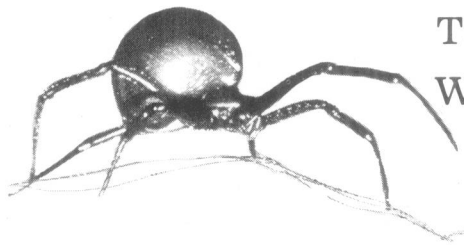
Stink bugs eat many plants.
They have a bad smell.



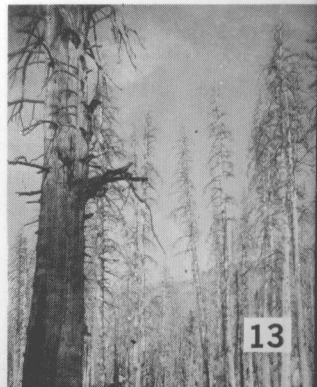
Mosquitoes lay their eggs in water.
Things that look like worms
come from the eggs.

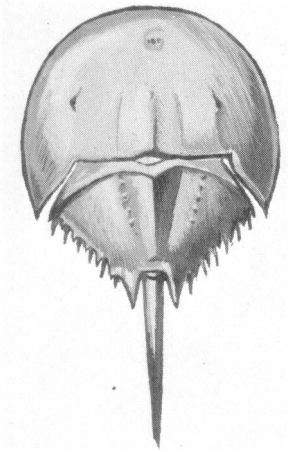
Mosquitoes come
from the wormlike things.
Mosquitoes suck blood.

Black widow spiders are poisonous.
Tarantulas have painful bites.
Watch out for these animals!



Pine beetles killed this forest.





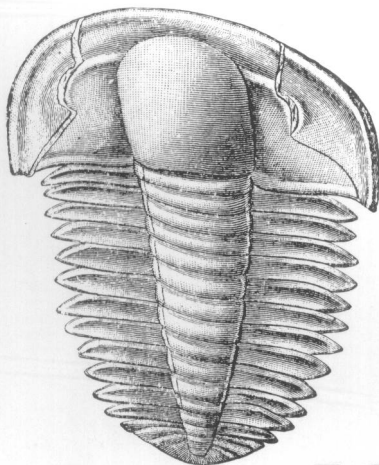
King crab

Some relatives
and spiders live
Some of these
and on sandy beaches.

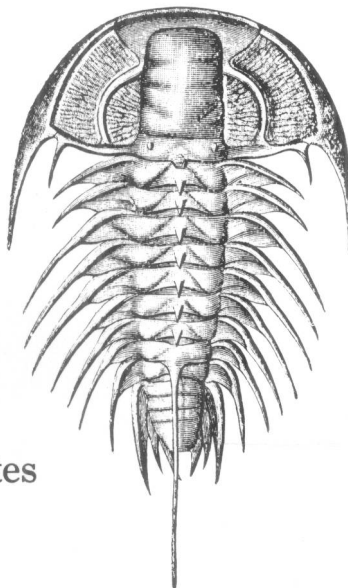
Others live in rivers and lakes.
These animals have jointed legs, too.
They have a hard, crusty shell.
Most of them eat small animals
and plants of the sea.

The king crab still looks
like its relatives of long ago.

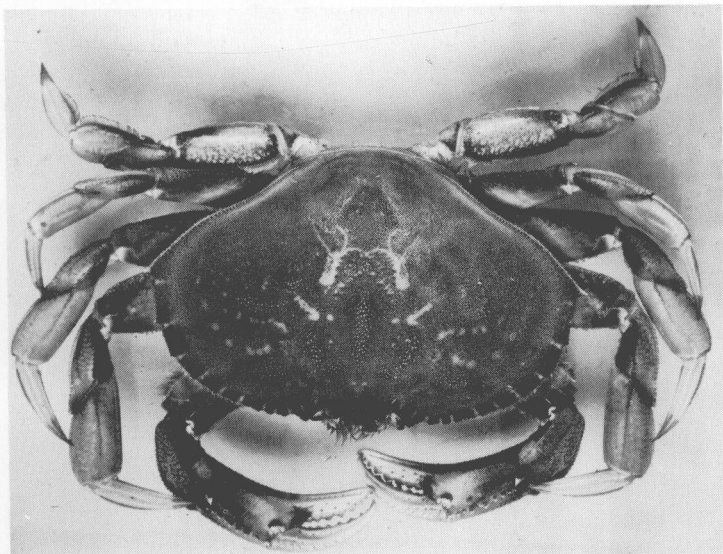
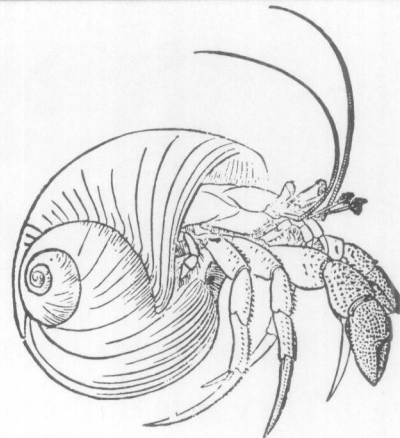
Here are relatives of the king crab.
They are fossils.



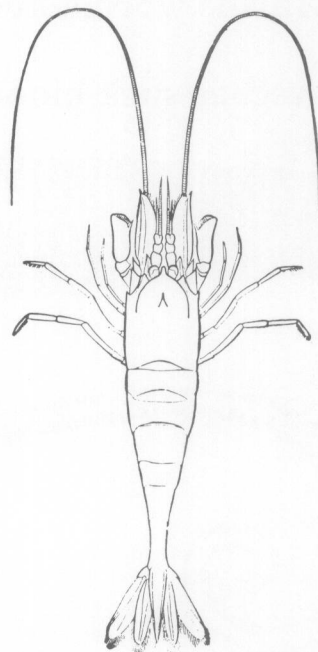
Trilobites



The hermit crab has a soft body.
It has no shell to protect it.
So, it borrows a shell
from other sea animals.

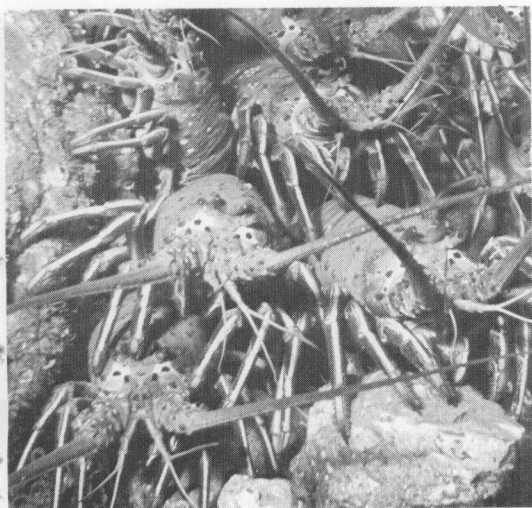


Market crabs are good to eat.



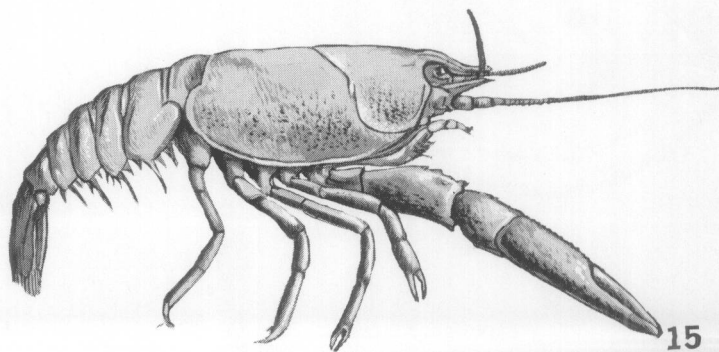
This shrimp has long feelers
like an insect.

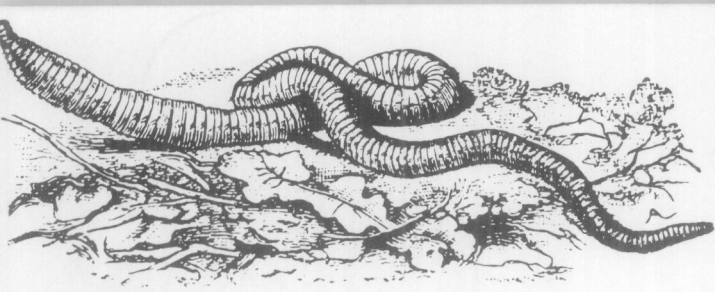
These feelers tell the shrimp
when something gets in its way.



Spiny lobsters have no claws.

Crayfish live in rivers and lakes.





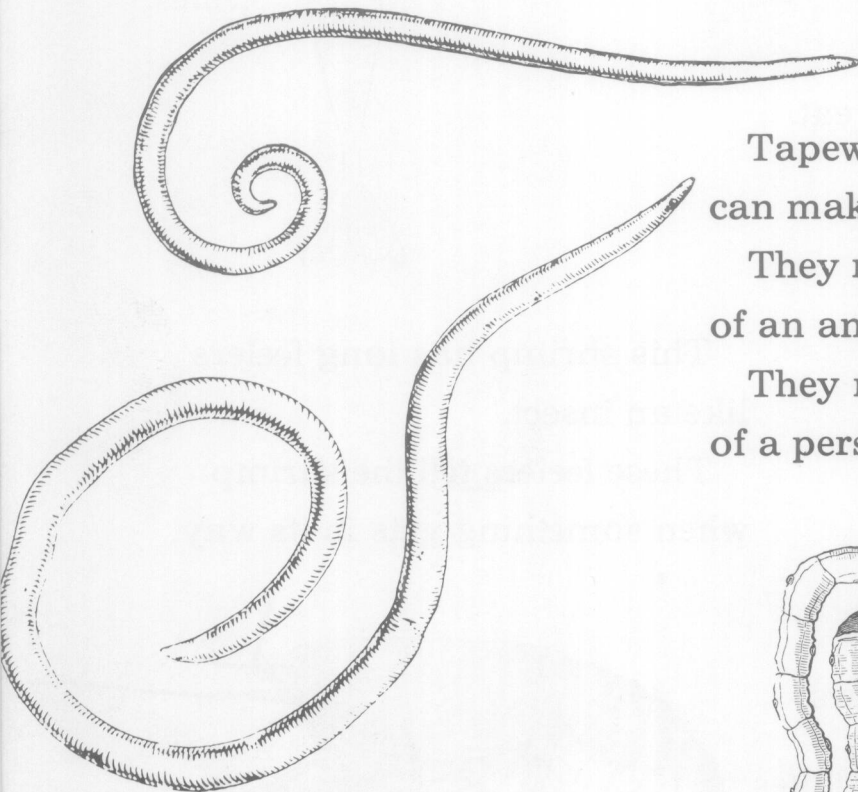
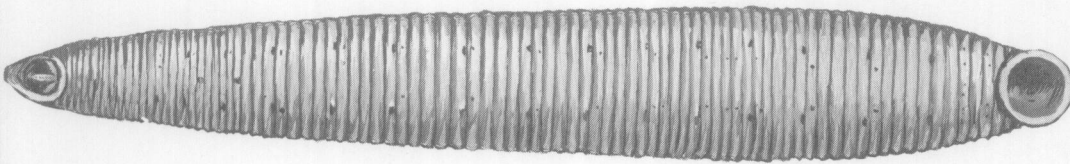
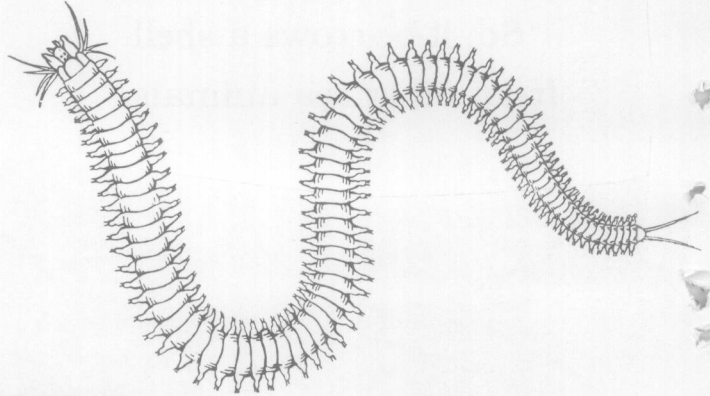
WORMS

Worms do not have jointed legs.
Most worms do not have any legs.

Earthworms have jointed bodies.
They live in the soil.

Marine worms live in the sea.

Leeches suck blood.



Tapeworms and roundworms
can make people or animals very ill.
They may live in the body
of an animal.

They may live in the body
of a person, too.

