

Subphylum: Myriopoda

myriopods = many feet

mainly **centipedes** and **millipedes**

may be most primitive group of living arthropods

long worm-like segmented body

almost all segments are similar

mostly terrestrial, many freshwater, very few marine species

general features:

body plan: head & long segmented trunk

1 pair of antennae

mandibles for feeding

uniramous appendages on each segment

tracheae for respiration

typical annelid-like nervous system

excretion by malpighian tubules attached to digestive tract (similar to insects)

4 main classes (only 2 are major):

1. **Chilopoda** (centipedes)
2. **Diplopoda** (millipedes)
3. **Paupoda**
4. **Symphyla**

Class: Chilopoda (centipedes)

“100 feet”

3000 species

some tropical species grow to 25 cm (10”) long

usually found in cool, moist habitats
→ under logs and rocks

Body Form

head and long segmented trunk

usually somewhat flattened

head

with pr of antennae

pair of eyes

each eye consists of a group of simple **ocelli**

→ cant form image

main mouthparts are **mandibles**

also 1-2 prs of **maxillae**

usually with pair of poison fangs

trunk

long wormlike segmented trunk

almost all segments are similar

on each of the body segments is a pair of walking legs

from 15 to 191 pairs

but none have 50 pairs (its always an odd #)

Feeding and Digestion

most are very active nocturnal **predators**

mainly use antennae to detect prey;

eyes not well developed

smaller ones eat worms and insects

larger ones, such as *Scolopendra* of Texas, can eat lizards and small mice

mandibles are primary feeding appendages

1st pair of appendages is a pair of poison fangs to subdue prey

→ apparently not harmful to humans

sting causes slight pain
disappears in a few hours

Reproduction

prolonged courtship – several hours

male deposits a spermatophore

then transfers it to female with mouth

female often cares for young in underground burrow

Class: Diplopoda (millipedes)

>10,000 species

“1000 feet”

usually in moist dark places

under logs and stones

can burrow through rotting logs

Body Form

body usually round in cross section

but locally, flattened millipedes are more common

head & long segmented **trunk**

head

head with 2 clusters of **simple eyes** (=ocelli)

1 pr **antennae**

feeding appendages are **mandibles** and **maxillae**

trunk

most “segments” after 1st 4 are fused in pairs (=diplosegments)

millipedes are “double footed”

→2prs legs/segment)

none have 1000 feet

most have fewer than 50 legs (25 prs)

maximum → 752 legs (376 prs)

=*Illacme plenipes*; endemic to small area in California; thought extinct until rediscovered in 2006

some can curl up like pill bugs for defense

like crustaceans, cuticle is often reinforced with calcium salts

Feeding & Digestion

most are scavengers:

feed mainly on decaying vegetation

a few are herbivores

feed on living plants

much less active than centipedes

eyes not well developed → essentially blind

mainly use **antennae** as primary sense organ

some are able to spray **defensive chemicals** from
"stink" glands along sides of body for protection

eg. toxins, irritants, HCN, prussic acid

eg. a European species secretes a tranquilizer similar to
qualudes

→predator (eg spider) eating it
becomes totally relaxed for several days

Reproduction

dioecious

in most appendages on the 7th segment are modified
as **copulatory organs** in males

after copulation female lays eggs in nest and guards
them