# Arthropod Mix-ups

# Is that Bug that Bugs you a Bug?

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#### BUGS and BEETLES: •Both are Insects •2 Pair (4) Wings

A TRUE BUG → •Wings Fold to Form an X



Green Shield BUG:

Milkweed BUG

A BEETLE → •Hard Top Wings Meet in a Straight Line.



Lady BEETLE

Green June BEETLE

## SPIDERS and INSECTS:



www.blevinsphoto.com/ argiope.htm

SPIDER: •4 Pair (8) of Legs Garden Spider



INSECT: •3 Pair (6) of Legs Velvet Ant

## **ISOPODS and INSECTS:**



← ISOPOD: •7 Pair of Legs (14) •7 Similar Body Segments

← Common Names: Sowbug Wood Louse Potato Bug Armadillo Bug Roly-poly

INSECT: •3 Pair(6) of Legs → •2 Pair Wings

Potato BEETLE:→ •Hard Top Wings Meet in a Straight Line

Common Name: Potato BUG→.



## FLIES and FLEAS:

## Both are Insects 3 Pair (6) Legs





FLY: •1 Pair (2) Clear Wings

**Green Bottle Fly** 

#### FLEA: •No Wings •Legs Adapted for Jumping •External Parasites

Dog Flea

### SPIDER CRAB and CRAB SPIDER:





Crab Spider: •4 Pair (8) Legs •Spider that Resembles a Crab Arachnid (Spider)

Spider Crab: •5 Pair (10) Legs •Crab that Resembles a Spider Crustacean

## BUTTERFLIES AND MOTHS:

•Insects •2 Pair (4) Wings •Wings Covered with Scales •Complete Metamorphosis





• BUTTERFLY • Knobbed Antennae • Wings Upright at Rest Monarch Butterfly

www.upenn.edu

MOTH •Feathered Antennae •Wings Flattened at Rest Luna Moth

## BEES, ANTS and WASPS:

Insects
2 Pair Wings (4) or None
Wings Clear Membranous
Front Wings Larger



math.uc.edu





WASPS: leptography.com
Thin "Waist"
Smooth Stinger

ANTS: •Bumps on "Waist" •Wings only for Reproductive Forms

## DRAGONFLIES and DAMSELFLIES:



DRAGONFLY:
Sturdy Body
Wings Horizontal at Rest
Exceptional Flyer

•Insects •2 Pair (4) Wings •Aquatic Nymphs



• Thin Body • Wings Folded at Rest

## CADDISFLIES, STONE FLIES & ANT LIONS





STONEFLY: •Membranous Wings •Front Wings Narrower •Wings Flat Over Body •Aquatic Nymph •All are Insects •2 Pair (4) Wings



#### CADDIS FLY:

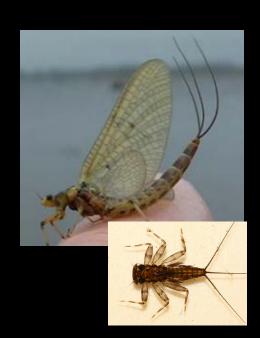
•Hairy Membranous Wings •Wings Held Tent-like •Aquatic Larvae Cased in Silk & Debris

#### ANTLION:

Membranous Equal Wings
Wings with Many Veins
Wings Roofed Over Body
Clubbed Antennae
Sand Dwelling Larvae Eat Ants

## CRANEFLIES, MAYFLIES & MOSQUITOES





•All are Insects



MOSQUITO True Fly (2 Wings) 1 Pair (2) •Membranous Wings •Feed on Plant Juices •Females Need Blood for Egg Development •Aquatic Larvae

CRANEFLY True Fly (2 Wings) •1 Pair (2) Membranous Wings •Very Long Fragile Legs •2 Pair (4) •2 Pair (4) Membranous Wings •Hind Wing Smaller •Wings Held Above Body •Aquatic Nymph

## **CENTIPEDES and MILLIPEDES:**

#### Myriapoda: •Many Legs •Many Segments



CENTIPEDES: •1 Pair (2) Legs per Segment •Flattened Bodies •Fast Moving •Often Poisonous •Escape or Bite when Disturbed



#### MILLIPEDES:

2 Pair (4) Legs per Segment
Rounded Bodies
Slow Moving
Coil and Play Dead when Disturbed



Jointed Legs and Protective Exoskeleton

#### Class Crustacea:

•5-7 Pair of Legs •Crabs, Lobsters and Isopods





#### Class Arachnida:

•4 Pair of Legs. •Spiders, Scorpions and Ticks



#### Red Legged Tarantula

#### Class Insecta:

•3 Pair of Legs •Insects



Giraffe Beetle

#### Class Myriapoda: •Many Legs: 1 or 2 Pair per Body Segment •Millipedes and Centipedes



House Centipede