



MIMICRY,
OH MY!

DIGGING INTO INTERESTING
ARTHROPOD DISGUISES

WRITTEN AND
ILLUSTRATED BY
MOLLY FITZGERALD



©2022 Molly Fitzgerald

ISBN: 978-1-7326524-6-0

Flea the Flyentist: Mimicry, Oh My!

Contributors

Author: Molly Fitzgerald

Illustrator: Molly Fitzgerald

Published by the J. Robert Van Pelt and John and Ruanne Opie Library

Michigan Technological University

Houghton, MI 49931

Flea the Flyentist: Mimicry, Oh My!

By Molly Fitzgerald is licensed under a

Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (CC BY-NC-ND 4.0), except where otherwise noted.



You are free to:

Share — Copy and redistribute the material in any medium or format.

Under the following terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NonCommercial — You may not use the material for commercial purposes.

NoDerivatives — If you remix, transform, or build upon the material, you may not distribute the modified material.

No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

The licensor cannot revoke these freedoms as long as you follow the license terms.



MIMICRY,
OH MY!

WRITTEN AND
ILLUSTRATED BY
MOLLY FITZGERALD

SPECIAL THANKS TO:
DR. THOMAS WERNER
MICHIGAN TECHNOLOGICAL UNIVERSITY
2022

HELLO FRIENDS! MY NAME IS
FLEA THE FLY, BUT TODAY I'M
FLEA THE BEE! WE ARE GOING
TO LEARN ALL ABOUT ARTHROPODS
AND WHY THEY MIMIC!



WHAT IS AN ARTHROPOD?

ARTHROPODS...

ARE FOUND
ALMOST
EVERYWHERE!

BREATHE
THROUGH
GILLS, BOOK
LUNGS, OR
TRACHEAE



HAVE JOINTED
APPENDAGES
AND A
SEGMENTED
BODY

HAVE AN
EXOSKELETON
MADE OF
CHITIN

~84% of ALL KNOWN
ANIMALS ARE
ARTHROPODS



MIMICRY IS THE EVOLVED
RESEMBLANCE OF ONE ORGANISM
TO ANOTHER ORGANISM OR
OBJECT. MANY ARTHROPODS
ARE MIMICS!

LET'S SEE
SOME FUN
ARTHROPOD
MIMICS!





VICEROY - *Limenitis archippus*

THE VICEROY BUTTERFLY AND THE MONARCH ARE COMMONLY CONFUSED. THEY HAVE SIMILAR COLORS, PATTERNS, AND RANGES ACROSS NORTH AMERICA.

mimics

MONARCH - *Danaus plexippus*

BOTH SPECIES ARE UNPALATABLE TO PREDATORS, AND THEY BOTH BENEFIT FROM THE VICEROY'S MIMICRY!

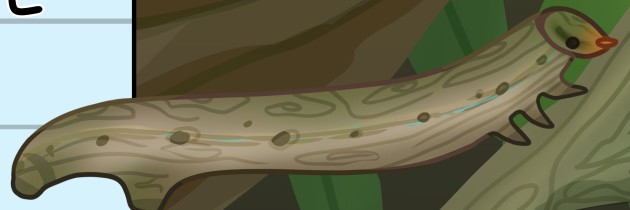




THE ADULT TWIG
LOOPER MOTH MIMICS
TREE BARK FOR
CAMOUFLAGE!

TWIG LOOPER - *Ectropis excursaria*

TWIG LOOPERS ARE NATIVE
TO EASTERN AUSTRALIA.
THE CATERpillARS →
ARE GREAT AT MIMICKING
TWIGS, HENCE THE NAME!



COMMON WASP - *Vespula vulgaris*



THE COMMON WASP IS A
PREDATOR WITH
RECOGNIZABLE COLORS
AND MANY MIMICS, LIKE
THE WASP MOTH AND
COMMON BANDED HOVERFLY!

COMMON BANDED HOVERFLY - *Syrphus ribesii*



WASP MOTH - *Amata grotei*





COMMON WASP - *Vespa vulgaris*

THE COMMON WASP IS A PREDATOR WITH POWERFUL JAWS. THEY FEED ON OTHER INSECTS, NECTAR, AND SPIDERS.

WASP MOTHS MAY SHARE THE COMMON WASP'S PATTERN, BUT THEY DON'T SHARE A DIET! WASP MOTHS EAT NECTAR.



WASP MOTH - *Amata grotei*



COMMON BANDED HOVERFLY - *Syrphus ribesii*

COMMON BANDED HOVERFLIES ALSO MIMIC WASPS. THEY HAVE A DIET OF NECTAR AND POLLEN LIKE THE WASP MOTH.



THE LOBSTER MOTH
IS COMMON ACROSS
MOST OF EUROPE
AND TEMPERATE ASIA.
THESE MOTHS
MIMIC TREE BARK
AS ADULTS.

LOBSTER MOTH - *Stauropus fagi*

THE NAME OF
THE MOTH COMES FROM
ITS' CRUSTACEAN-LIKE
CATERPILLAR!





Wow!
You look just
like an **Ant**!

Thanks,
I try!

LOBSTER MOTH - *Stauropus fagi*

BLACK CARPENTER ANT - *Camponotus pennsylvanicus*

YOUNG, EARLY INSTAR LOBSTER
MOTH CATERPILLARS LOOK VERY
SIMILAR TO ANTS, SUCH AS
THE BLACK CARPENTER ANT!

Macrocilix maia

THIS CURIOUS ASIAN
MOTH, *Macrocilix maia*,
MIMICS A FLY
EATING A FRESH
BIRD DROPPING.
THIS MAKES THEM
UNAPPEALING TO
PREDATORS.



Sarcophaga crassipalpis

10

THE CATERPILLAR
OF THE GIANT
SWALLOWTAIL MIMICS
BIRD DROPPINGS A
LITTLE TOO WELL!
THEY ARE NATIVE
TO THE AMERICAS.

GIANT SWALLOWTAIL- *Papilio cresphontes*



LOOKS LIKE EYES



SOME MOTHS WITHIN
THE METALMARK MOTH
FAMILY MIMIC THE
FEATURES AND
MOVEMENTS OF
JUMPING SPIDERS!

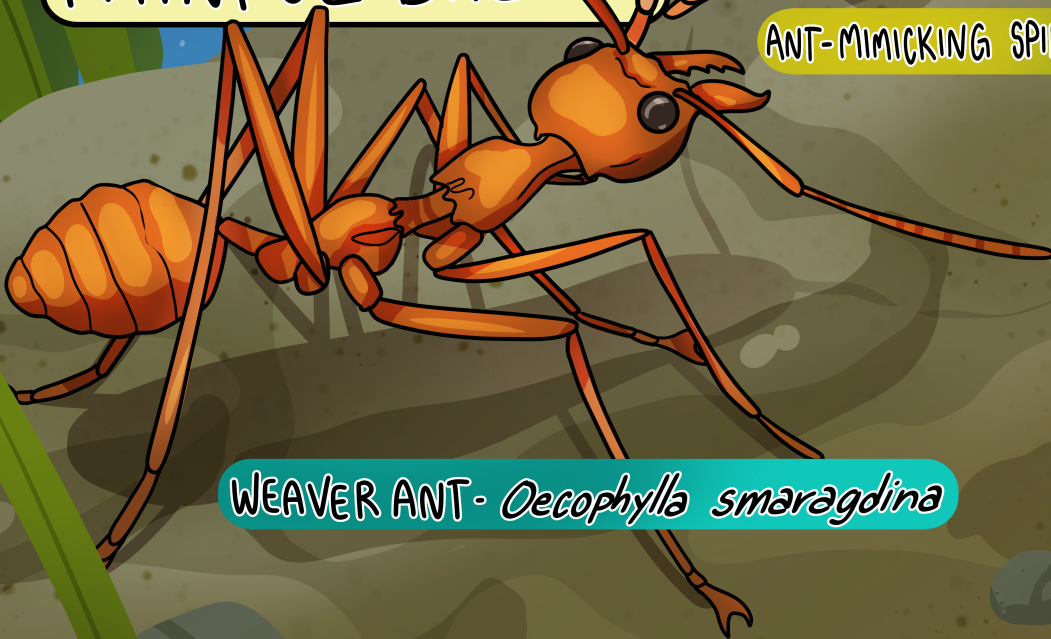
METALMARK MOTH - *Brenthia hexaselena*

JUMPING SPIDERS ARE
PREDATORS, UNLIKE
METALMARK MOTHS.

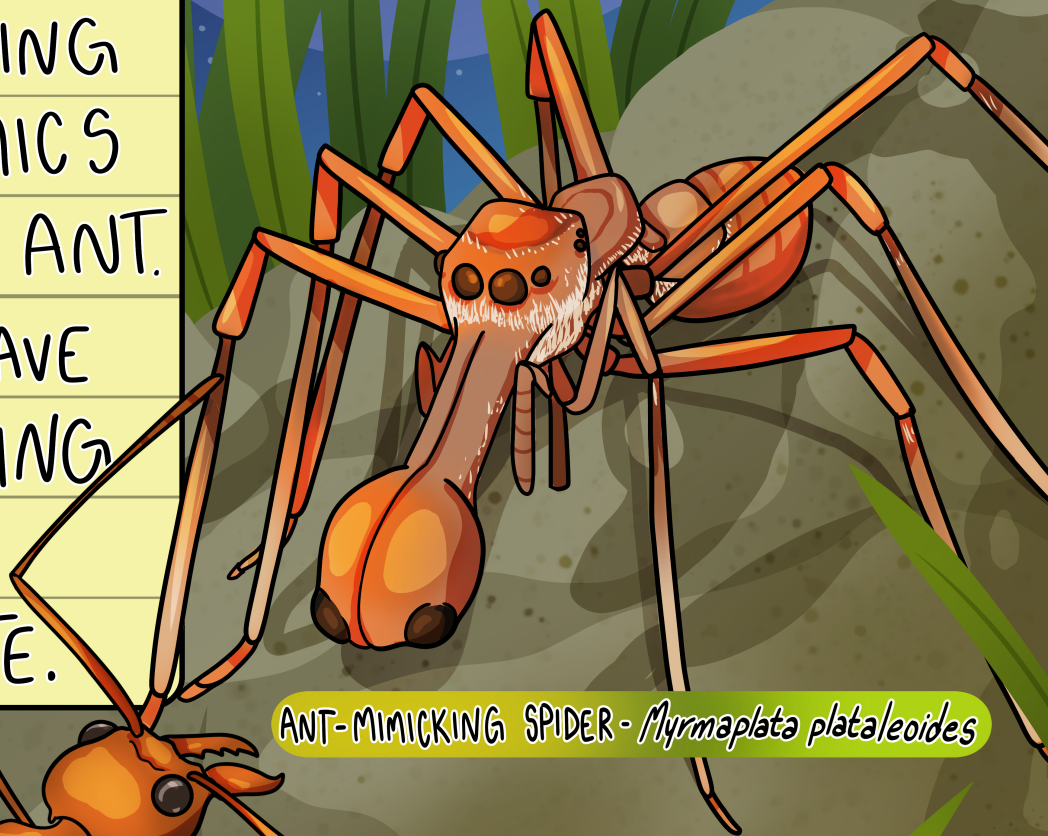
Phiale formosa



THE EAST ASIAN
ANT-MIMICKING
SPIDER MIMICS
THE WEAVER ANT.
THE ANTS HAVE
AN UNAPPEALING
TASTE AND A
PAINFUL BITE.



WEAVER ANT - *Oecophylla smaragdina*



ANT-MIMICKING SPIDER - *Myrmaplata plataleoides*

THOSE ARE ONLY
A FEW EXAMPLES
OF ARTHROPOD
MIMICS! LET'S
SEE SOME OTHER
ANIMAL MIMICS!



OTHER FUN MIMICS 2

LEAF KATYDID mimics → A LEAF!

SPIDER-TAILED
HORNED VIPER mimics → A SPIDER!

MILK SNAKE mimics → CORAL SNAKE!

ZONE-TAILED HAWK mimics → TURKEY VULTURE!

FANG BLENNY mimics → BLUE STREAK
CLEANER WRASSE!

SCREECH OWL mimics → TREE BARK!



THANKS FOR
READING!

GO FIND OTHER
FUN ANIMAL MIMICS!

CHECK OUT MY OTHER FLEA
THE FLYENTIST BOOKS ↪
WHAT IS AN INVASIVE SPECIES?

doi.org/10.37099/mtv.dc.oabooks/5

WHAT'S THE DIFFERENCE?

doi.org/10.37099/mtv.dc.oabooks/6





THANKS FOR READING!

BE ON THE WATCH FOR MORE!