



Prize Winner

Science Writing Year R-2

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St Peter's College



My Backyard Biosphere

In my backyard and front yard, I found many bugs because we made a bug-friendly garden. Bugs are important for growing crops and supporting biodiversity. Every year we lose more species, and their numbers are dropping. Climate change, deforestation, pesticide use and monoculture cropping cause this to happen.



We have two ponds and planted different plants, including many native species in our garden. Together, they create an ecosystem that attracts many bug species and small wildlife. Dragonflies and damselflies hover around the ponds to eat mosquitoes and midges, and bees stop by for a drink. Ponds are like a rest stop for wildlife to feed and reproduce, helping them travel across the city.



Figure 2: My backyard oasis (painted by: Benjamin)

See Appendix A for the names of the bugs. Pasted by: Dad

We have a healthy lawn because we let the grass grow longer. Longer grass grows deeper roots, making the soil structure stronger. Longer grass gives shade and supports biodiversity. Also, we don't use pesticides so ground beetles and other beneficial bugs can move in. When ground beetles tunnel and channel the soil, they aerate it and help plant roots and microorganisms access more oxygen and water.



a.



b.



c.

Figure 3: Sighting of many ground beetles is a good sign of healthy soil and lawn.

- a. Cosmopolitan ground beetle
- b. Google-eyed ground beetle
- c. Submetallic ground beetle

Spotted by: Benjamin

Pictures taken by: Dad
Identified with iNaturalist

We are having a biodiversity crisis, and many bugs are becoming ghostly extinct. Even insects people fear, like wasps, are important for healthy ecosystems. We need to save those that are still alive by creating sustainable, bug-friendly gardens.



Figure 4: I found 2 grasshoppers in my garden.
Picture taken by: Dad

Bibliography

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Word count: 217 words

Special reasons for help in writing and editing:

I love Science and my special interest is Entomology. I wrote a lot about the topic of My Backyard Biosphere. My Mum helped me to understand which information is most important so I could reduce the word count.

My Mum taught me how to write the bibliography in Harvard Style.

I am always looking for bugs and when I find one, my Dad helps me to photograph it so I can research it. He helped me organise my bug diary to list only the sightings I made at home.

My Dad helped me to scan my writing into the computer and paste in the photos and my drawings.

Appendix A.



Figure 2: My backyard oasis (painted by: Benjamin)
(pasted by: Dad)

- | | |
|-----------------------------|-------------------------------------|
| A. Diamondback moth | G. African lawn beetle |
| B. Brown shield bug | H. Slater |
| C. Australian garden mantis | I. Tau emerald dragonfly |
| D. Narrow-waisted wasps | J. Slender green-winged grasshopper |
| E. Western honey bee | K. Conehead Katydid |
| F. Spotted lady beetle | L. Ground beetle |

Appendix B.

My Bug

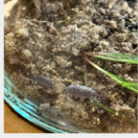
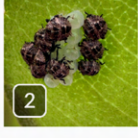
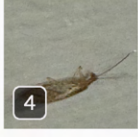
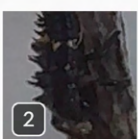
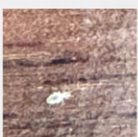
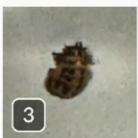
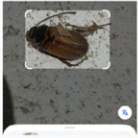
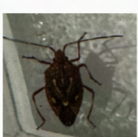


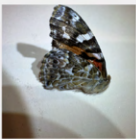
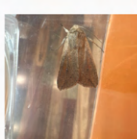
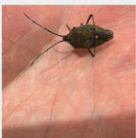
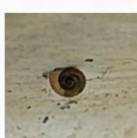
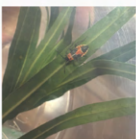
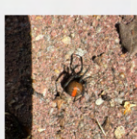
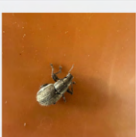
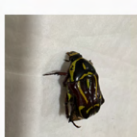
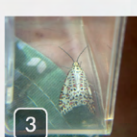
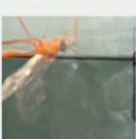
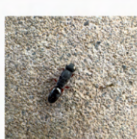
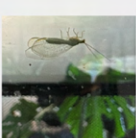
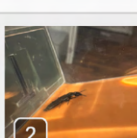
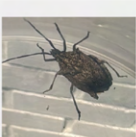
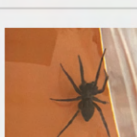
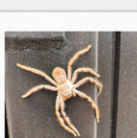
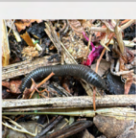
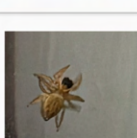
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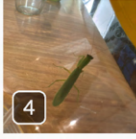
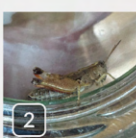
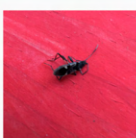
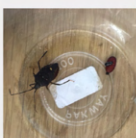
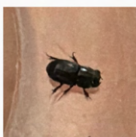
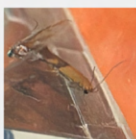
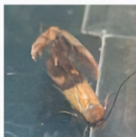
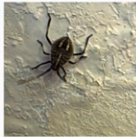
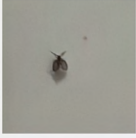
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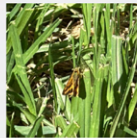
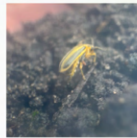
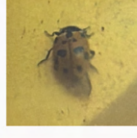
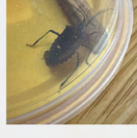
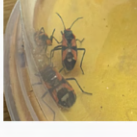
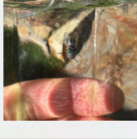
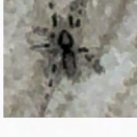
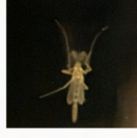
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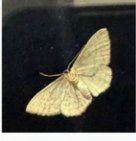
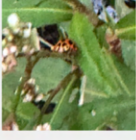
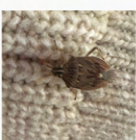
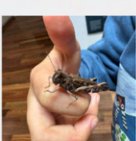
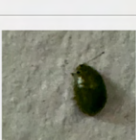
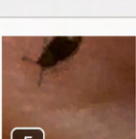
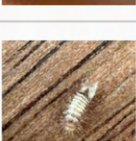
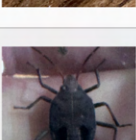
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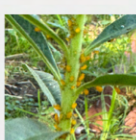
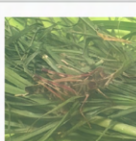
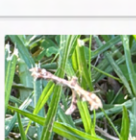
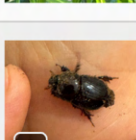
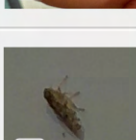
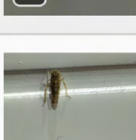
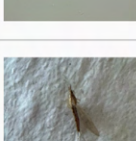
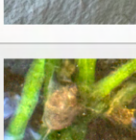
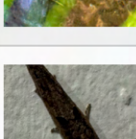
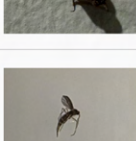
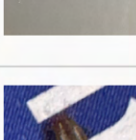
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	Diamondback Moth (<i>Plutella xylostella</i>) 🛡️ 1	Oct 28, 2025
	Tobacco Looper (<i>Chrysodeixis argentifera</i>) Research Grade 🛡️ 2	Nov 3, 2025
	Subfamily Ennominae 🛡️ 1	Nov 4, 2025
	Leaf Katydid (Subfamily <i>Phaneropterinae</i>) 🛡️ 1	Nov 4, 2025
	Potato Mirid (<i>Closterotomus norwegicus</i>) 🛡️ 2	Nov 6, 2025
	Brown Shield Bug (<i>Poecilometis strigatus</i>) 🛡️ 1	Nov 19, 2025
	Powder Blue Isopod (<i>Porcellionides pruinosus</i>) 🛡️ 1	Nov 22, 2025
	Stink Bugs, Shield Bugs, and Allies (Superfamily <i>Pentatomoidea</i>) 🛡️ 1	Nov 24, 2025
	Tasmanian Brown Lacewing (<i>Micromus tasmaniae</i>) 🛡️ 1	Nov 26, 2025
	Subgenus Austrosyrphus 🛡️ 2	Nov 27, 2025
	Butterflies and Moths (Order <i>Lepidoptera</i>) 🛡️ 1	Nov 30, 2025
	Lacewings and Allies (Suborder <i>Hemerobiiformia</i>) 🛡️ 1	Dec 2, 2025
	Variegated Lady Beetle (<i>Hippodamia variegata</i>) 🛡️ 1	Dec 2, 2025
	Arthropods (Phylum <i>Arthropoda</i>) 🛡️ 2	Dec 5, 2025
	Lady Beetles (Family <i>Coccinellidae</i>) 🛡️ 1	Dec 6, 2025
	RTA Clade Spiders (Zoosection <i>Rta</i> clade) 🛡️ 1	Dec 16, 2025
	False Chinch Bugs (Genus <i>Nysius</i>) 🛡️ 2	Dec 16, 2025
	Genus <i>Sericesthis</i> 🛡️ 1	Dec 17, 2025
	Schellenberg's Soldier Bug (<i>Oechalia schellenbergii</i>) Research Grade 🛡️ 2	Dec 19, 2025
	Complex <i>Poecilometis</i> alienus 🛡️ 2	Dec 25, 2025
	Brown Shield Bug (<i>Poecilometis strigatus</i>) 🛡️ 2	Dec 27, 2025
	<i>Kapunda trougtoni</i> 🛡️ 2	Dec 27, 2025

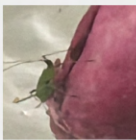
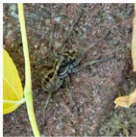
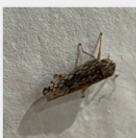
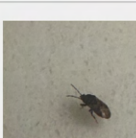
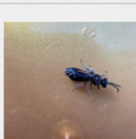
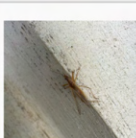
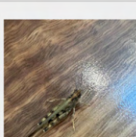
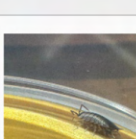
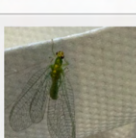
	Pittosporum Shield Bug (<i>Monteithiella humeralis</i>) Research Grade 2	Dec 27, 2025		Camponotine Ants (Tribe Camponotini) 2	Jan 15, 2026
	Portuguese Millipede (<i>Ommatoiulus moreleti</i>) Research Grade 4	Dec 27, 2025		Carpenter Ants, Typical Sugar Ants and Allies (Genus <i>Camponotus</i>) 1	Jan 15, 2026
	Australian Painted Lady (<i>Vanessa kershawi</i>) Research Grade 4	Jan 1, 2026		Australian Armyworm (<i>Pseudaletia convecta</i>) 1	Jan 16, 2026
	Brown Shield Bug (<i>Poecilometis strigatus</i>) Research Grade 2	Jan 1, 2026		Pinhead Spot Snail (<i>Paralaoma servilis</i>) 2	Jan 21, 2026
	Pentatomomorph Bugs (Infraorder Pentatomomorpha) 2	Jan 3, 2026		Redback Spider (<i>Latrodectus hasselti</i>) Research Grade 3	Jan 26, 2026
	White-fringed Weevil (<i>Naupactus leucoloma</i>) Research Grade 2	Jan 4, 2026		Fiddler Beetle (<i>Eupoecila australasiae</i>) Research Grade 2	Jan 27, 2026
	Tribe Chrysopini 2	Jan 4, 2026		Heliotrope Moth (<i>Utetheisa pulchelloides</i>) Research Grade 2	Jan 27, 2026
	Ichneumonid Wasps (Family Ichneumonidae) 1	Jan 4, 2026		Narrow-waisted Wasps, Ants, and Bees (Suborder Apocrita) 3	Jan 31, 2026
	Plesiochrysa ramburi 1	Jan 4, 2026		Genus <i>Thyreocephalus</i> 1	Feb 3, 2026
	Genus <i>Alcaeus</i> 1	Jan 8, 2026		Black House Spider (<i>Badumna insignis</i>) 1	Feb 5, 2026
	Pacific Damsel Bug (<i>Nabis kinbergii</i>) Research Grade 2	Jan 8, 2026		Leishmann's Huntsman (<i>Isopeda leishmanni</i>) Research Grade 2	Feb 8, 2026
	Portuguese Millipede (<i>Ommatoiulus moreleti</i>) 1	Jan 11, 2026		White Banded House Jumper (<i>Maratus griseus</i>) Research Grade 2	Feb 17, 2026

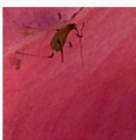
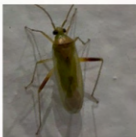
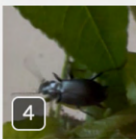
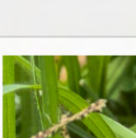
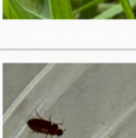
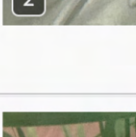
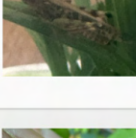
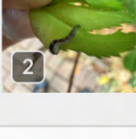
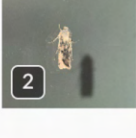
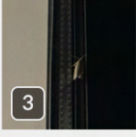
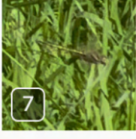
	Genus <i>Mandalotus</i> 🛡️ 2	Feb 21, 2026
	Greater Lady Beetles (Genus <i>Harmonia</i>) 🛡️ 1	Mar 2, 2026
	Australian Garden Mantis (<i>Orthodera ministralis</i>) Research Grade 🛡️ 2	Mar 4, 2026
	Wingless Grasshopper (<i>Phaulacridium vittatum</i>) 🛡️ 1	Mar 4, 2026
	<i>Dieuches notatus</i> 🛡️ 2	Mar 4, 2026
	Genus <i>Poecilometis</i> 🛡️ 2	Mar 5, 2026
	Scarabs (Family Scarabaeidae) 🛡️ 1	Mar 5, 2026
	Genus <i>Stathmopoda</i> 🛡️ 1	Mar 6, 2026
	<i>Stathmopoda auriferella</i> 🛡️ 1	Mar 6, 2026
	Stern Jumping Spider (<i>Clynotis severus</i>) 🛡️ 1	Mar 7, 2026
	Brown Shield Bug (<i>Poecilometis strigatus</i>) Research Grade 🛡️ 2	Mar 7, 2026
	Bathroom Moth Fly (<i>Clogmia albipunctata</i>) Research Grade 🛡️ 3	Mar 11, 2026

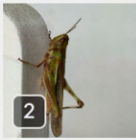
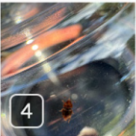
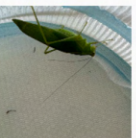
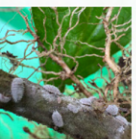
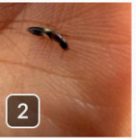
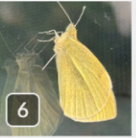
	Yellow-banded Dart (<i>Ocybadistes walkeri</i>) Research Grade 🛡️ 2	Mar 15, 2026
	Elm Leaf Beetle (<i>Xanthogaleruca luteola</i>) Research Grade 🛡️ 3	Mar 18, 2026
	Bronze Fieldbeetle (<i>Adelium brevicorne</i>) 🛡️ 1	Mar 18, 2026
	Geometer Moths (Family Geometridae) 🛡️ 1 💬 1	Mar 23, 2026
	Variegated Lady Beetle (<i>Hippodamia variegata</i>) Research Grade 🛡️ 4	Mar 23, 2026
	<i>Poecilometis fuscescens</i> 🛡️ 2	Mar 23, 2026
	<i>Melanerythrus mactans</i> Research Grade 🛡️ 2	Mar 23, 2026
	Bluebottle Flies (Genus <i>Calliphora</i>) 🛡️ 1	Mar 25, 2026
	Gnaphosoid Spiders (Superfamily Gnaphosoidea) 🛡️ 3	Mar 26, 2026
	Winged and Once-winged Insects (Subclass Pterygota) 🛡️ 1	Mar 30, 2026
	Genus <i>Scopodes</i> 🛡️ 1	Mar 30, 2026
	Australian Garden Mantis (<i>Orthodera ministralis</i>) Research Grade 🛡️ 2	Mar 31, 2026

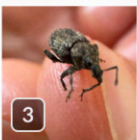
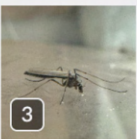
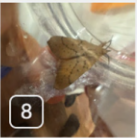
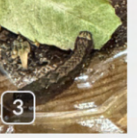
	Boatman Fly (<i>Pogonortalis doclea</i>) Research Grade 2	Apr 3, 2026
	Macrotonas (Genus <i>Macrotona</i>) 1	Apr 4, 2026
	Geometer Moths (Family Geometridae) 1	Apr 8, 2026
	Large Spotted Ladybird (<i>Harmonia conformis</i>) 2	Apr 9, 2026
	Subfamily Deleninae 1	Apr 9, 2026
	Sugarcane Soldier Fly (<i>Inopus rubriceps</i>) 3	Apr 9, 2026
	Genus <i>Poecilometis</i> 1	Apr 10, 2026
	Australian Plague Locust (<i>Chortoicetes terminifera</i>) 1	Apr 12, 2026
	Genus <i>Paropsides</i> 1	Apr 14, 2026
	Cucujiform Beetles (Infraorder Cucujiformia) 5 1	Apr 14, 2026
	Carpet Beetles (Genus <i>Anthrenus</i>) 2	Apr 15, 2026
	Genus <i>Poecilometis</i> 2	Apr 16, 2026

	Tribe Geotomini 2	Apr 18, 2026
	Oleander Aphid (<i>Aphis nerii</i>) Research Grade 2	Apr 18, 2026
	Australian Plague Locust (<i>Chortoicetes terminifera</i>) 1	Apr 19, 2026
	Genus <i>Sphenarches</i> 1	Apr 20, 2026
	Subtribe Pentodontina 2 1	Apr 20, 2026
	Subfamily Deltocephalinae 2 1	Apr 21, 2026
	Genus <i>Orosius</i> 1	Apr 21, 2026
	Mayflies (Order Ephemeroptera) 2	Apr 22, 2026
	Bladder Snails (Family Physidae) 1	Apr 22, 2026
	Tribe Eucosmini 1	Apr 22, 2026
	Fungus Gnats and Gall Midges (Superfamily Sciaroidea) 1	Apr 22, 2026
	Water, Rove, Scarab, Long-horned, Leaf, and Snout Beetles (Suborder Polyphaga) 1	Apr 22, 2026

	Rose Aphid (<i>Macrosiphum rosae</i>) 🛡️ 1	Apr 22, 2026
	Variable Wolf Spider (<i>Venator spenceri</i>) 🛡️ 1	Apr 23, 2026
	Butterflies and Moths (Order Lepidoptera) 🛡️ 1	Apr 23, 2026
	Typical Leafhoppers (Family Cicadellidae) 🛡️ 1	Apr 23, 2026
	Genus Orosius 🛡️ 1	Apr 23, 2026
	White Banded House Jumper (<i>Maratus griseus</i>) 🛡️ 2	Apr 24, 2026
	Subfamily Rhyparochrominae 🛡️ 1	Apr 24, 2026
	Painted Callomelitta (<i>Callomelitta picta</i>) 🛡️ 3 🗨️ 1	Apr 25, 2026
	Pacific Damsel Bug (<i>Nabis kinbergii</i>) 🛡️ 2	Apr 25, 2026
	Australian Plague Locust (<i>Chortoicetes terminifera</i>) Research Grade 🛡️ 2	Apr 25, 2026
	Genus <i>Porcellionides</i> 🛡️ 1	Apr 25, 2026
	Tribe Chrysopini 🛡️ 1	Apr 25, 2026

	Rose Aphid (<i>Macrosiphum rosae</i>) 🛡️ 1	Apr 27, 2026
	<i>Creontiades dilutus</i> 🛡️ 2	Apr 28, 2026
	Cosmopolitan Ground Beetle (<i>Laemostenus complanatus</i>) 🛡️ 1	Apr 29, 2026
	Fire-flag Plume Moth (<i>Sphenarches anisodactylus</i>) 🛡️ 2	Apr 30, 2026
	Darkling Beetles and Allies (Superfamily Tenebrionoidea) 🛡️ 1	May 1, 2026
	Australian Plague Locust (<i>Chortoicetes terminifera</i>) 🛡️ 1	May 2, 2026
	Winged and Once-winged Insects (Subclass Pterygota) 🛡️ 1	May 3, 2026
	Bogong Moth (<i>Agrotis infusa</i>) Research Grade 🛡️ 3 🗨️ 1	May 4, 2026
	Butterflies and Moths (Order Lepidoptera) 🛡️ 1	May 4, 2026
	Tau Emerald (<i>Hemicordulia tau</i>) 🛡️ 1	May 4, 2026
	Western Honey Bee (<i>Apis mellifera</i>) Research Grade 🛡️ 2	May 5, 2026

	Slender Green-winged Grasshopper <i>(Aiolopus thalassinus)</i>  1	May 6, 2026
	<i>Alcaeus varicornis</i> Research Grade  2	May 8, 2026
	Ant-like Leaf Beetles (Family Aderidae)  2	May 12, 2026
	Knotweeds, Smartweeds, and Waterpeppers (Genus <i>Persicaria</i>)  1	May 13, 2026
	Hypogastrurid Springtails (Family Hypogastruridae)  2	May 16, 2026
	Pacific Damsel Bug <i>(Nabis kinbergii)</i> Research Grade  2	May 16, 2026
	Cucujiform Beetles (Infraorder Cucujiformia)  1	May 17, 2026
	Eastern Bush Orbweaver <i>(Plebs eburnus)</i>  1	May 17, 2026
	Australian Common Garden Katydid <i>(Caedicia simplex)</i>  1	May 19, 2026
	Genus <i>Planococcus</i>  1	May 23, 2026
	Tribe Xantholinini  2	May 23, 2026
	Small White <i>(Pieris rapae)</i> Research Grade  3	May 30, 2026

	Genus <i>Mandalotus</i>  1	May 30, 2026
	Leaf Beetles (Family Chrysomelidae)  1	May 31, 2026
	Submetallic Ground Beetle <i>(Notagonum submetallicum)</i>  1	Jun 1, 2026
	Acalyptrate Flies (Zoosubsection Acalyptratae)  1	Jun 2, 2026
	<i>Chironomus tepperi</i>  1	Jun 2, 2026
	Gum Snout Moth <i>(Entometa fervens)</i>  1	Jun 4, 2026
	Common Lady Beetles (Subfamily Coccinellinae)  1	Jun 6, 2026
	Fuller's Rose Weevil <i>(Pantomorus cervinus)</i>  1	Jun 6, 2026
	Sneaking Ants (Genus <i>Cardiocondyla</i>)  2	Jun 7, 2026
	Bogong Moth <i>(Agrotis infusa)</i> Research Grade  2	Jun 7, 2026
	Cutworms and Dart Moths (Subfamily Noctuinae)  1	Jun 12, 2026