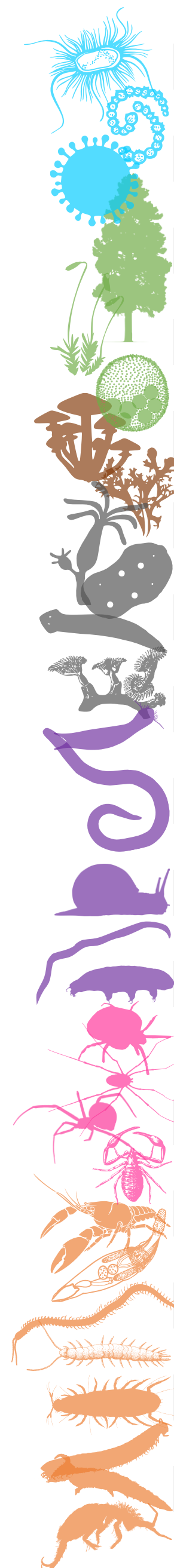


# WHO LIVES in Great Smoky Mountains National Park?



Scan to learn more about us or  
visit [dlia.org/entomology-2021](https://dlia.org/entomology-2021)



NUMBER OF SPECIES RECORDED	Before ATBI	New Smokies Records	New to Science	Total
<b>BACTERIA</b>	0	212	270	<b>482</b>
<b>ARCHAEA</b>	0	0	44	<b>44</b>
<b>VIRUSES</b>	1	19	4	<b>24</b>
<b>PROTISTA</b> slime molds, amoeba, microsporidia	131	195	18	<b>344</b>
<b>PLANTS: VASCULAR</b>	1,598	215	1	<b>1,814</b>
<b>PLANTS: NON-VASCULAR</b> mosses, etc.	634	11	0	<b>645</b>
<b>CHROMISTA</b> water molds, sporozoans	0	35	1	<b>36</b>
<b>ALGAE</b>	358	566	78	<b>1,002</b>
<b>FUNGI</b>	2,157	1,256	68	<b>3,481</b>
<b>LICHENS</b>	340	537	54	<b>931</b>
<b>CNIDARIA</b> jellyfish, hydra	0	4	0	<b>4</b>
<b>PORIFERA</b> freshwater sponges	0	2	0	<b>2</b>
<b>PLATYHELMINTHES</b> flatworms	5	42	6	<b>53</b>
<b>BRYOZOA</b> moss animals	0	1	0	<b>1</b>
<b>GASTROTRICHA</b> hairy bellies	0	2	0	<b>2</b>
<b>NEMATOMORPHA</b> horsehair worms	2	3	0	<b>5</b>
<b>NEMATODA</b> roundworms	11	80	3	<b>94</b>
<b>NEMERTEA</b> ribbon worms	0	1	0	<b>1</b>
<b>MOLLUSCA</b> snails, slugs, mussels, etc.	121	65	2	<b>188</b>
<b>ANNELIDA</b> aquatic worms, leeches, earthworms	22	68	7	<b>97</b>
<b>TARDIGRADA</b> waterbears	3	61	17	<b>81</b>
<b>ARACHNIDA: ACARI</b> mites and ticks	43	235	48	<b>326</b>
<b>ARACHNIDA: OPILIONES</b> harvestman	1	21	2	<b>24</b>
<b>ARACHNIDA: ARANEAE</b> spiders	237	270	41	<b>548</b>
<b>ARACHNIDA: SCORPIONS/PSEUDOSCORPIONS</b>	11	10	1	<b>22</b>
<b>CRUSTACEA</b> crayfish, copepods, pillbugs	22	66	29	<b>117</b>
<b>ROTIFERA</b> wheel animals, spiny-headed worms	0	3	0	<b>3</b>
<b>CHILOPODA</b> centipedes	19	41	0	<b>60</b>
<b>SYMPHYLA</b> symphylans	0	1	2	<b>3</b>
<b>PAUROPODA</b> pauropods	7	25	17	<b>49</b>
<b>DIPLOPODA</b> millipedes	39	34	3	<b>76</b>
<b>PROTURA</b> coneheads	7	9	10	<b>26</b>
<b>COLLEMBOLA</b> springtails	61	150	59	<b>270</b>

NUMBER OF SPECIES RECORDED	Before ATBI	New Smokies Records	New to Science	Total
<b>DIPLURA</b> two-pronged bristletails	4	5	5	<b>14</b>
<b>MICROCORYPHIA</b> jumping bristletails	1	2	1	<b>4</b>
<b>ZYGENTOMA</b> silverfish	1	1	0	<b>2</b>
<b>EPHEMEROPTERA</b> mayflies	77	53	8	<b>138</b>
<b>ODONATA</b> dragonflies & damselflies	58	39	0	<b>97</b>
<b>DERMAPTERA</b> earwigs	2	0	0	<b>2</b>
<b>PLECOPTERA</b> stoneflies	73	52	11	<b>136</b>
<b>ORTHOPTERA</b> grasshoppers, crickets, katydids	67	42	4	<b>113</b>
<b>PHASMIDA</b> walking sticks	2	2	0	<b>4</b>
<b>MANTODEA</b> mantids	2	0	0	<b>2</b>
<b>BLATTODEA</b> cockroaches, termites	2	8	0	<b>10</b>
<b>THYSANOPTERA</b> thrips	0	48	0	<b>48</b>
<b>HEMIPTERA</b> true bugs, hoppers	340	509	5	<b>854</b>
<b>PSOCODEA</b> barklice, booklice, parasitic lice	26	103	5	<b>134</b>
<b>MEGALOPTERA</b> alderflies, dobsonflies, fishflies	4	3	0	<b>7</b>
<b>NEUROPTERA</b> lacewings, antlions, etc.	9	35	0	<b>44</b>
<b>STREPSIPTERA</b> twisted-wing insects	0	2	0	<b>2</b>
<b>COLEOPTERA</b> beetles	546	2013	74	<b>2,633</b>
<b>HYMENOPTERA</b> ants, bees, wasps	317	908	24	<b>1,249</b>
<b>TRICHOPTERA</b> caddisflies	176	64	4	<b>244</b>
<b>LEPIDOPTERA</b> butterflies, moths, skippers	725	1,150	39	<b>1,914</b>
<b>MECOPTERA</b> scorpionflies	15	2	1	<b>18</b>
<b>SIPHONAPTERA</b> fleas (a.k.a. parasitic scorpionflies)	17	9	1	<b>27</b>
<b>DIPTERA</b> flies	903	1,195	66	<b>2,164</b>
<b>FISH</b>	70	7	0	<b>77</b>
<b>AMPHIBIA</b> frogs, salamanders	41	3	0	<b>44</b>
<b>REPTILES</b> snakes, lizards, turtles	37	2	0	<b>39</b>
<b>AVES</b> birds	238	13	0	<b>251</b>
<b>MAMMALIA</b> bats, elk, rodents, bears, etc.	63	6	0	<b>69</b>



**TOTAL**

Species known to GSMNP before ATBI (1998)	<b>9,646</b>		
Species records documented in GSMNP since ATBI		<b>10,507</b>	
Species described from material in GSMNP since ATBI			<b>1,045</b>
Species currently known to exist in GSMNP			<b>21,198</b>



# We need YOUR help!



## Identify Smokies arthropods on iNaturalist

We and others regularly record observations of Smokies insects and other arthropods via the iNaturalist platform. Some observations include diagnostic microscope imagery. Scan to help identify Smokies arthropods on iNaturalist.



## Help identify a backlog of arthropod samples

There are lots of insects and other arthropods collected from Great Smoky Mountains National Park over the last 20+ years that are waiting to be identified. Help us identify this treasure-trove and uncover the thousands of species discoveries waiting to be added to the Smokies ATBI! **Funding may be available for qualified individuals.**



## Take a survey about your taxon of specialty

We're conducting a study to assess the "completeness" of the Smokies All Taxa Biodiversity Inventory. This study will help us further prioritize work on taxa that are understudied in the Smokies and hone our estimate of the total number of species in the park (it's currently 60,000–80,000 species). You can help by taking a survey to judge our efforts thus far at cataloging your taxon of specialty in the Smokies. Let us know if you'd like to take the survey.



## Conduct your own biodiversity work

Great Smoky Mountains National Park is extremely biodiverse! We know of ~21,000 species inhabiting the park, and that's just the tip of the iceberg. Many Smokies taxa are still considered vastly understudied. You can help by conducting your own biodiversity work in the Smokies, focusing on our priority taxa (right). We're happy to help you get started!



Scan to let us know how you'd like to help, and we'll follow up with you.



Scan to learn more about us or visit [dlia.org/entomology-2021](https://dlia.org/entomology-2021)

# CURRENT PRIORITY ARTHROPODS

We need your help to complete the inventory of these taxa in Great Smoky Mountains National Park.

## INSECTS

- ARCHAEOGNATHA** – backlog of material that needs to be identified
- EPHEMEROPTERA** – backlog
- ZORAPTERA** – not documented in GSMNP, but should be present
- DERMAPTERA** – understudied in GSMNP, backlog
- PLECOPTERA** – backlog
- EMBIOPTERA** – not documented in GSMNP, but should be present
- BLATTODEA** – need survey taker
  - Isoptera/Termitoidae** – backlog
- THYSANOPTERA** – need survey taker, backlog
- HEMIPTERA** – backlog for order, in general
  - Coccoidea, Fulgoroidea** – understudied, need survey takers
  - Anthocoridae, Miridae, Nabidae, Psyllidae, Tingidae** – understudied, need survey takers
- PSOCODEA** – backlog
- NEUROPTERA** – backlog
- STREPSIPTERA** – understudied, backlog
- COLEOPTERA** – backlog
- HYMENOPTERA** – backlog for order, in general
  - Chalcidoidea, Cynipoidea, Ichneumonoidea, Platygastroidea** – understudied, need survey takers
- TRICHOPTERA** – backlog
- LEPIDOPTERA** – backlog
- MECOPTERA** – backlog (including larvae)
  - Siphonaptera** – understudied, backlog, need survey taker
- DIPTERA** – backlog for order, in general
  - Asiloidea, Muscoidea, Oestroidea** – understudied

## OTHER ARTHROPODS

- ARACHNIDA**
  - Acari** – understudied, backlog
  - Pseudoscorpiones** – understudied, backlog
  - All orders** – need survey takers
- MYRIOPODA**
  - Chilopoda** – backlog
  - Diplopoda** – understudied, backlog
  - Symphyla** – understudied
- CRUSTACEA**
  - Isopoda** – backlog
- COLLEMBOLA** – backlog



Scan for full priority taxa list.