

Kevin Cook's Wish-List for Images to be Used in April Program

General Notes

- A Numbers are to facilitate questions and answers. If you think you have an image or want to try and get an image, call or email me and use the image number so we can talk.
- B I obviously cannot use all these images in a one-hour program. I am hoping to get maybe 30-50 images. With a little luck, some name on this list will prompt an, "Oh yeah! I've got one of those!"
- C Some of these species are findable and catchable right now; these are indicated by an underlined number. I am willing to help procure the specimens for anyone who wants to photograph them. Some images may involve field settings; other images can be set up in a lab.
- D The abbreviations "micro" and "mic" indicate species so small that they must be photographed through a microscope or other specialty device.
- E Latin names in brackets on the far right margin are for anyone who wants to look up an organism or species to learn more about it preparatory to a photo session.
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Sponge

- 1 Water type where freshwater sponges live
- 2 Wood material on which freshwater sponges attach and live
- 3 macro Actual sponge or sponge cluster on wood

Hydra

- 4 Water type where hydras live
- 5 Material to which hydras attach
- 6 macro Actual hydra (can be done indoors in photo lab)

Planaria

- 7 Water type where planarians live, including suburban drainage ditches
- 8 Material to which planarians attach
- 9 Bait by which to attract and catch planarians
- 10 macro Actual planarians (can be done indoors in photo lab)

Roundworm

11 micro Nematode (indoors in photo lab)

Annelid

12 macro Earthworm

13 macro Earthworm burrow entrance with soil “chimney”

14 Water type where leeches live: various in-town natural areas and neighborhood parks with cattail-lined creeks or ponds

15 macro Leech (can be done indoors in photo lab)

16 macro Sludgeworm (can be done indoors in photo lab if I can find some!)

Arthropod — Arachnids: Not Spiders

17 macro Harvestman

18 macro Mite

19 macro Pseudoscorpion

20 macro Scorpion

[Hadrurus, Paruroctonus, Vaejovis]

21 macro Solpugid

[Eremobates]

22 macro Tick

[Dermacentor]

Arthropod — Arachnids: Spiders

23 macro Banded Argiope

[Argiope]

24 macro Black-widow

[Latrodectus]

25 macro Catface-spider

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26 macro Crab-spider

[Misumena]

27 macro Giant Earth-Wolf

[Hogna]

28 macro Jumping-spider

[Phidippus]

29 macro Roly-poly-Hunter

[Dysdera]

30 macro Sac-spider: exotic species now commonly found in homes and other buildings

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31 macro Tarantula

[Aphonopelma]

Arthropod — Crustaceans

32 macro Slater (a.k.a. “roly-poly,” “pillbug,” “sow bug,” “wood louse”)

33 mac-mic Asellus (relative of “roly-poly” found in shallow water where watercress grows)

- 34 Water type where Asellus lives
- 35 Wilson's Snipe in area where Asellus lives
- 36 macro Crayfish
- 37 macro Crayfish mound (easily found on south shore of Douglas Res. north of Waverly)
- 38 macro Tadpole-shrimp
- 39 mac-mic Fairy-shrimp
- 40 macro Opossum-shrimp [Mysis]
- 41 micro Daphnia (can be done indoors in photo lab if I can find some!)
- 42 micro Cladoceran (can be done indoors in photo lab if I can find some!)
- 43 mac-mic Clam-shrimp (can be done indoors in photo lab if I can find some!)

Arthropod — Hexapod: Springtails

- 44 macro Springtails in the wild
- 45 micro Sprintails up-close (can be done indoors in photo lab)
- 46 Kind of place where springtails live (almost anywhere!)
- 47 Potted plant: springtails live in houseplant pots if outdoor soil is used

Arthropod — Hexapod: Insects – Subclass Dicondylia

- Zygentoma – Silverfishes (long classified as an insect in order Thysanura)
- 48 macro Silverfish: basements, bathrooms, kitchens [Ctenolepisma lineata, Lepisma saccharina, thermobia domestica]

Arthropod — Hexapod: Insects – Subclass Pterygota

- Blattodea – Cockroaches and termites (termites long classified in own order, Isoptera)
- 49 macro Cockroach [Blatella germanica, Periplaneta americana, Supella longipalpa]
- 50 macro Cattle dung on plains, beneath which live termites
- 51 macro Termites beneath cattle dung [Reticulitermes tibialis]

Coleoptera – Beetles

- 52 macro Bark-beetle: any of the species afflicting Colorado conifers [Dendroctonus ponderosae, D. rufipennis]
- 53 macro Blister-beetle: common on plains and foothills wildflowers [Epicauta pensylvanica, E. immaculata]
- 54 macro Burying-beetle: stodgy gray-brown and common around roadkill [Oiceoptoma]
- 55 macro California Prionus: Colorado's biggest beetle [Prionus californicus]
- 56 macro Carrion-beetle: black and orange [Nicrophorus marginatus]

57	macro Carrion-beetle showing phoretic mites	[Nicrophorus marginatus]
58	macro Colorado Potato Beetle	[Leptinotarsa decemlineata]
59	macro Cottonwood Borer	[Plectrodera scalator]
60	macro Cottonwood Borer tunnels in cottonwood wood (CSU Environmental Learning Center)	
61	macro Darkling-beetle: several species	[Eleodes suturalis; Bothrotes]
62	macro Darkling-beetle: headless and gutless carcasses left by beetle-eating mice	
63	macro Firefly: Riverbend Ponds in June!	[Photuris]
64	macro Ground-beetle: predatory, big jaws	[Amara, Calosoma, Harpalus, Pasimachus]
65	macro Ground-beetle: headless and gutless carcasses left by beetle-eating mice	
66	macro June-beetle: Ten-lined June-Beetle would be great!	[Polyphylla]
67	macro Lady-beetle (a.k.a. "Lady bug")	[Coccinella, Hippodamia]
68	macro Milkweed Longhorn	[Tetraopes]
69	macro Pine Sawyer: common in Ponderosa Pine areas; antennae twice length of body	[Monochamus]
70	macro Tiger-beetle	[Amblycheila, Cicindela]
71	macro Weevil: culturally well known but generally without any actual familiarity	
72	Whirligig-beetles: little zig-zaggy things on pond surfaces	[Dineutus]
73	macro Whirligig-beetle: closeup	[Dineutus]

Dermaptera – Earwigs

74	macro Earwig: any earwig, anywhere!	[Forficula]
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Diptera – Flies

75	macro Black-fly	[Simulium]
76	macro Blow-fly	[Calliphora]
77	macro Cluster-fly	[Pollenia]
78	macro Crane-fly	[Tipula]
79	macro Deer-fly	[Chrysops, Silvius]
79	macro Fruit-fly	[Drosophila]
80	macro Fungus-gnat: common household nuisance	[Bradysia]
81	macro Gall-midge: willow cone gall on willow twigs (easily found)	[Rhabdophaga strobiloides]
82	macro Greenbottle-fly	[Luilia sericata]
83	macro Horse-fly: Colorado's biggest fly species	[Hybomitra, Tabanus]
84	macro Midge	[Chironomus]

- 85 macro Mosquito: adult – any genus and species
 86 macro Mosquito: larva – any genus and species
 87 macro Mosquito: pupa – any genus and species
 88 macro Robber-fly: ecologically functions as an “antipollinator” by intercepting prey at flowers [Diogmites, Proctacanthus]
 89 macro Syrphid-fly: bee mimics [Eristalis, Syrphus]
 90 macro Tachinid-fly: [Adejeania]

Embioptera – Webspinners [ignore]

Ephemeroptera – Mayflies

- 91 macro Mayfly: adult of any genus, any species
 92 macro Mayfly: nymph of any genus, any species

Grylloblattodea – Rock-crawlers [ignore]

Hemiptera – Bugs

- 93 macro Adelgid
 94 macro Adelgid: galls of Cooley Spruce Gall Adelgid on spruce twigs
 95 macro Aphid
 96 macro Aphid cluster on plant stalk
 97 macro Backswimmer [Notonecta]
 98 macro Boxelder-Bug [Boisea trivittata]
 99 macro Cicada
 100 macro Cicada: exuvium (nymphal husk) of any species
 101 macro Masked Hunter [Reduvius]
 102 macro Psyllid
 103 Psyllid: galls on hackberry leaves
 104 macro Water-boatman
 105 macro Water-strider [Aquarius, Gerris]
 106 macro Western Conifer Seed Bug [Leptoglossus]
 107 macro Wheel bug: highly predatory [Arilus]

Hymenoptera – Ants

108	macro	Carpenter-ant: Colorado's largest ant species; predatory; and they squeak!	[Camponotus]
109	macro	Field-ant: Colorado's most diverse ant genus	[Formica]
110	macro	Harvester-ant: some incredibly poisonous!	[Pogonomyrmex]
111	macro	Harvester-ant: volcanolike mound	
112	macro	Pavement-ant	[Tetramorium]
113	macro	Pavement-ant: fine-soil mound in sidewalk or driveway crack	
114	macro	Thatcher-ant	[

Hymenoptera – Bees

115	macro	Bumblebee: especially with big yellow pollen clumps on hind legs	[Bombus]
116	macro	Halictid (a.k.a "sweat bee")	[Agapostemon]
117	macro	Honey-bee	[Apis]
118	macro	Leafcutter-bee	[Megachile, Osmia]

Hymenoptera – Wasps

119	macro	Pompilids: the "spider wasps"	
120	macro	Sphecids: the "hunting wasps"	
121	macro	Vespids: the "social wasps" – hornets, yellowjackets	[Polistes, Vespula, Dolichovespula]
122	macro	Velvet-ant: females colorful wingless wasps	[Dasymutilla]
123	macro	Giant Ichneumon	[Megarhyssa]

Lepidoptera – Moths

124	macro	Banded Woollybear	[Pyrrharctia]
125	macro	Cabbage White	[Pieris]
126	macro	Cecropia Moth	[Hyalophora cecropia]
127	macro	Fall Webworm	[Hyphantria]
128	macro	Glover's Silk Moth	[Hyalophora gloveri]
129	macro	Miller	[Euxoa]
130	macro	Monarch	[Danaus plexippus]
131	macro	Mourning Cloak	[Nymphalis antiopa]
132	macro	Painted Lady	[Vanessa cardui]
133	macro	Polyphemus Moth	[Antheraea polyphemus]
134	macro	Tomato Hornworm	[Manduca sexta]

- 135 macro Two-tailed Swallowtail [Papilio multicaudatus]
 136 macro Western Tent Caterpillar [Malacosoma]
 137 macro Whitelined Sphinx [Hyles]

Mantodea – Mantids (a.k.a. “praying mantises”)

- 138 macro Chinese Mantid: sold in garden shops for pest control [Tenodera]
 139 macro European Mantid: black-and-white patches inside legs [Mantis]
 140 macro Ground Mantid: native; common Pawnee NG [Litaneutria, Yersiniops]
 141 macro Mantid egg mass (looks like and feels like a Styrofoam clump!)

Mantophasmatodea – Gladiator-bugs (African only!?! [ignore]

Mecoptera – Scorpionflies [ignore]

Megaloptera – Dobsonflies [ignore]

Neuroptera – Nerveflies

- 142 macro Antlion: adult [Brachynemurus, Myrmeleon, Scotoleon]
 143 macro Antlion: larva
 144 macro Antlion: conical pits of larvae
 145 macro Green-lacewing [Family Chrysopidae; Chrysopa, Chrysoperla]
 146 macro Lacewing eggs: solitary and on a hairlike stalk

Odonata – Dragonflies

- 147 macro Blue Darner: our biggest dragonfly [Aeshna]
 148 macro Green Darner [Anax]
 149 macro Damselfly [Argia, Enallagma]
 150 macro Whitetail Dragonfly: abundant and commonly seen [Plathemis lydia]
 151 macro Dragonfly nymph (can be done indoors in photo lab)
 152 macro Damselfly nymph (can be done indoors in photo lab)

Orthoptera – Grasshoppers

- 153 macro Barber Pole Grasshopper [Dactylotum]

154	macro	Carolina Grasshopper	[Dissoteira carolina]
155	macro	Differential Grasshopper	[Melanoplus differentialis]
156	macro	Plains Lubber: Colorado's largest grasshopper	[Brachstola magna]
157	macro	Cricket: the quintessential "cricket"	[Gryllus]
158	macro	Camel-cricket: hump-backed, coppery brown; in garages	[Ceuthophilus, Daihinia, Udeopsylla]
159	macro	Snowy Tree-Cricket: hear them everywhere all summer but almost never see them	[Oecanthus]
160	macro	Jerusalem-cricket	[Stenopelmatus fuscus]
161	macro	Katydid: important food of Mississippi Kite and predicted indicator of climate change	[Microcentrum]
162		Grasshopper of any species impaled on barb-wire or a thorn (work of a shrike!)	

Phasmida – Walkingsticks

163	macro	Colorado Walkingstick	[Parabacillus]
164	macro	Prairie Walkingstick	[Diapheromera]

Plecoptera – Stoneflies

165	macro	Stonefly: adult of any genus, any species	
<u>166</u>	macro	Stonefly: nymph of any genus, any species	

Psocodea – Lice

167	macro	Mammal louse	
168	micro	Bird louse	

Raphidioptera – Snakeflies (often as not classified with nervewings, order Neuroptera)

169	macro	Snakefly	[Inocella]
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Siphonaptera – Fleas

170	macro	Rock Squirrel Flea: most common vector of plague bacteria	[Oropsylla]
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Strepsiptera – Twistwings [ignore]

Thysanoptera – Thrips

Trichoptera – Caddisflies

- 171 macro Caddisfly: adult of any genus, any species
172 macro Caddisfly: of any genus, any species – sand-and-grit case
173 macro Caddisfly: of any genus, any species – plant material case

Zoraptera – Zorapterans [ignore]

Arthropod — Myriapods: Centipedes

- 174 macro Giant Desert Centipede: to six inches long (can be found in old quarry scabble around Horsetooth Res.) [Scolopendra]
 175 macro House Centipede: basements, garages, garden sheds [Scutigera]

Arthropod — Myriapods: Millipedes

- 176 macro Sidewalk millipede: exotic, now most commonly seen species; common on pavement at night [Junius]
 177 macro Big millipede

Arthropod — Myriapods: Symphylans (look like centipedes but they aren't; maybe ignore?)

- macro
 macro
-

Mollusk — Bivalve

- 178 macro Pea-clam (can be done indoors in photo lab if I can find some!) [Musculium, Pisidium, Sphaerium]
179 macro Giant Floater: Colorado's largest mollusk (should be easily findable in Lake Loveland and Horseshoe Lake while water is drawn down)
 180 Mudflats where big freshwater-mussels (a.k.a. "clams") live
 181 Site where pea-clams live
 182 macro Sediment accumulation essential for pea-clams

Mollusk — Gastropod

- 183 macro Brown Garden Snail: exotic species from Europe (I have a pet specimen currently in dormancy!)
184 macro Dextral-shelled snail: aperture of shell up, pointed end away, aperture is on right [Fosaria, Lymnea]
185 macro Sinistral-shelled snail: aperture of shell up, pointed end away, aperture is on left [Physella]
186 macro Snail with shell coiled but not spiraled [Gyraulus]

187 macro Mountain-snail: any species

[Oreohelix]

188 macro Slug

189 macro Slug slime trail

Tardigrade

190 Moss garden: place where terrestrial tardigrades are easily found

191 Marsh: waters well-grown with aquatic plants where aquatic tardigrades can be found

192 mac-mic Tardigrade

193 American White Pelican: especially one yawning or gaping to show inside of pouch

194 Turtle: with algae on its shell

195 Cliff Swallow nests: under bridge, on cliff face, or under building eave (birds do not have to be in photo)

196 Barn Swallow nests: under bridge, on cliff face, or under building eave (birds do not have to be in photo)

197 Tail of horse showing long hair: folklore claims horse tail hairs that fall in water become “horsehair-worms”

198 Pool of water on Pawnee National Grassland: home of at least three “shrimp” species

199 Pool of water in mountains, especially spring in spruce forest: home of parasite that causes giardiasis

200 Fox den