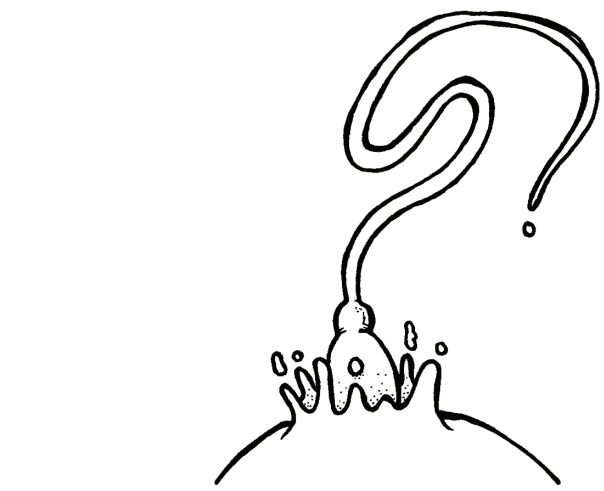


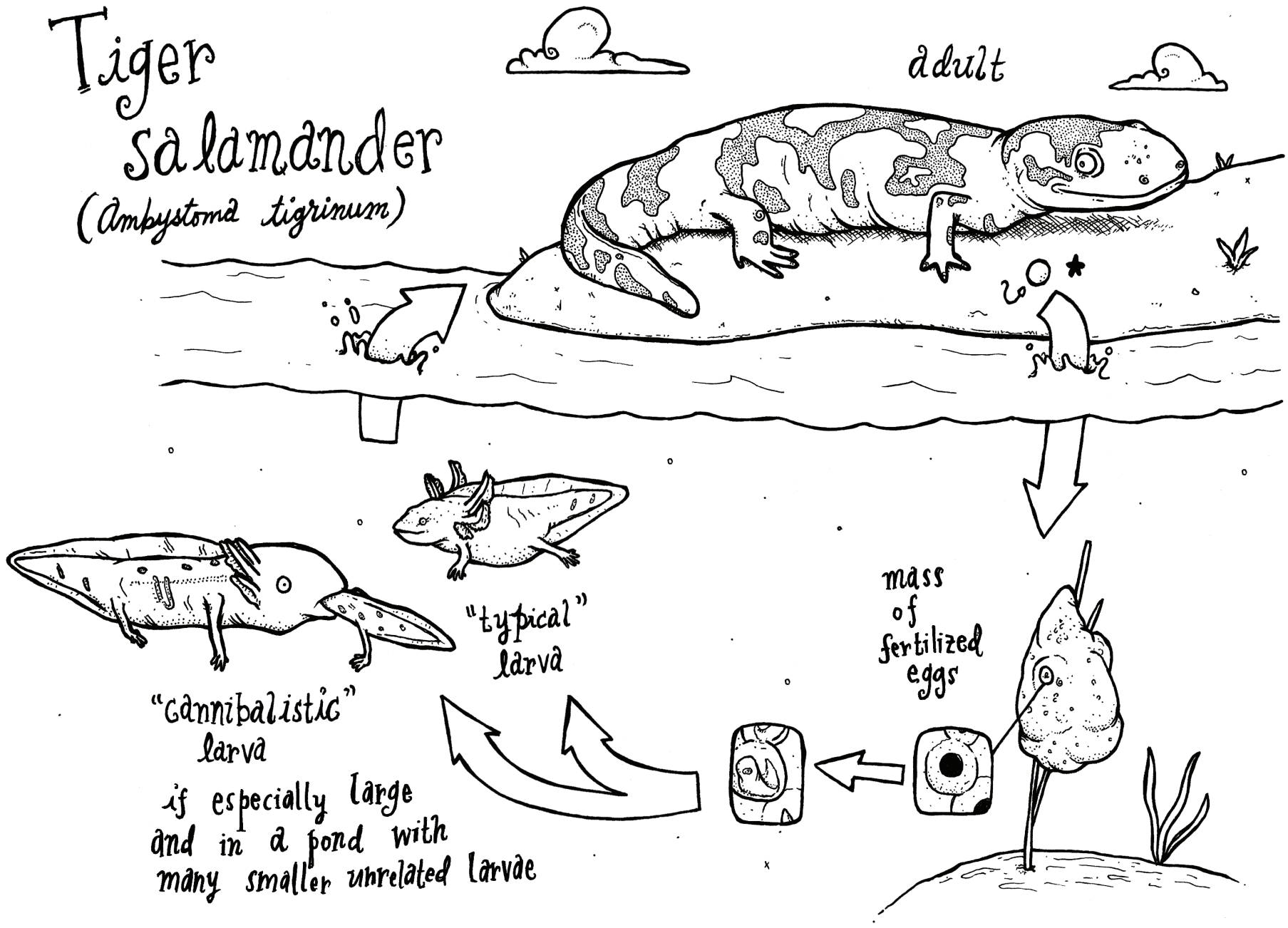
Lifecycles

by Manvir Singh

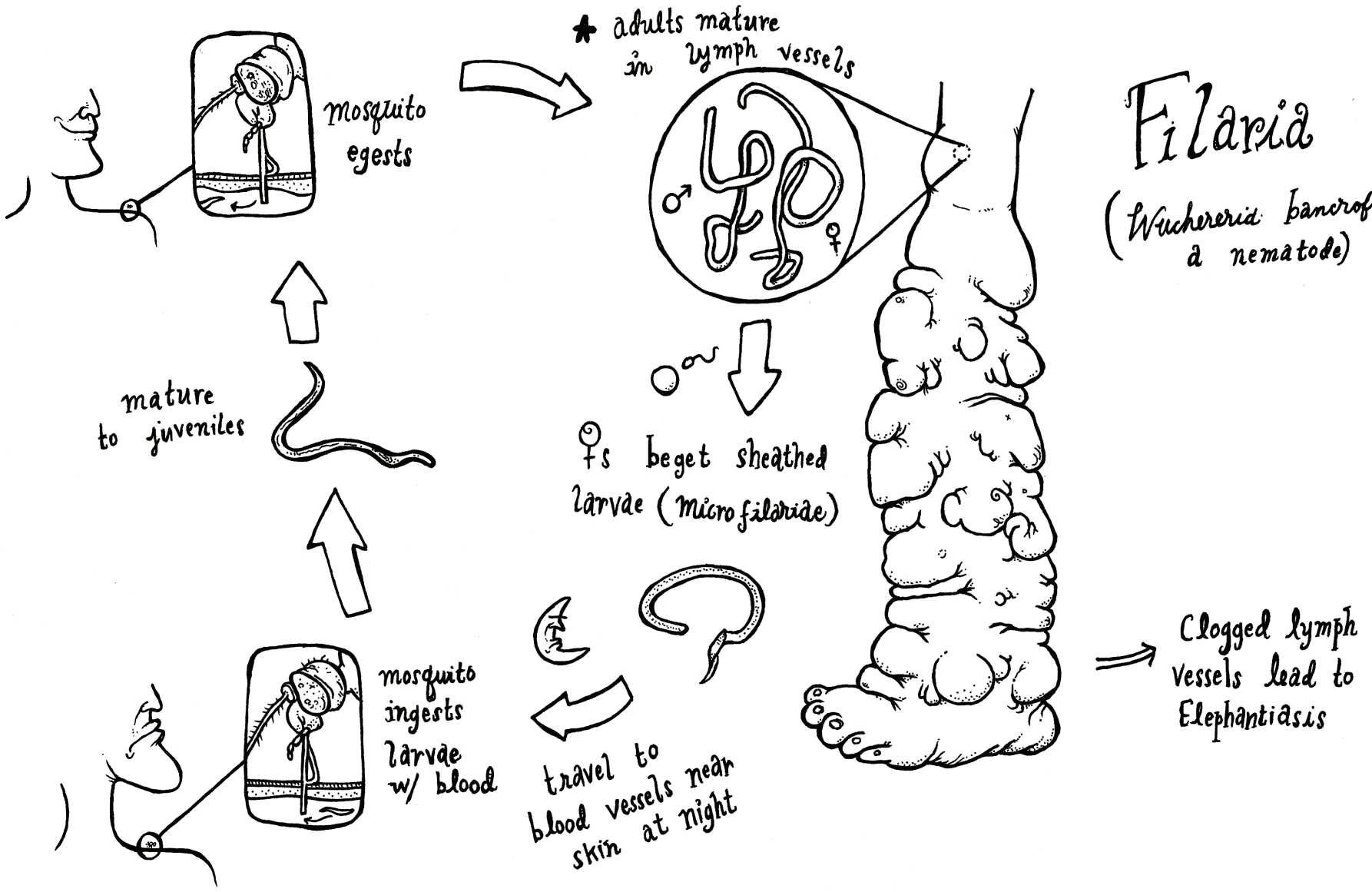
Most of us have a pretty biased view of lifecycles that is shaped by our knowledge of familiar organisms. Our own lifecycles are quite simple - we come out of other humans looking like little people, grow to a larger size, and create more people. Yet many animals live more complicated lives than our own - tadpoles and caterpillars look nothing like their parents but later metamorphose into adults. This pamphlet builds on this foundation, introducing readers to a wonderful diversity of organisms and lifestyles. I chose these organisms to highlight certain features including transformations in body forms, changes in habitat, and a dependence on other organisms. As you peruse through the pamphlet, keep in mind that organisms experience many environmental problems, like how to propagate or avoid competition, and a lifecycle acts as a dynamic solution to these pressures. Enjoy!

★⇒ start reading lifecycle here

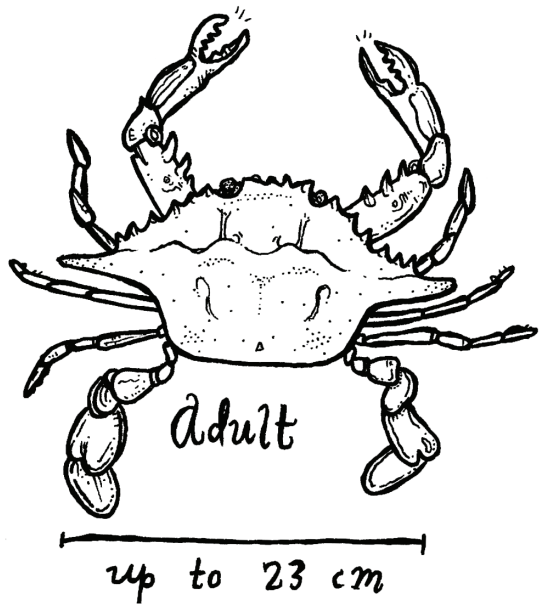
Tiger salamander
(*Ambystoma tigrinum*)



Filaria
(*Wuchereria bancrofti*, a nematode)



Blue crab
(Callinectes sapidus)



egg

sperm

Plankton

1 mm

Zoea - 4 to 7 molts

1 mm

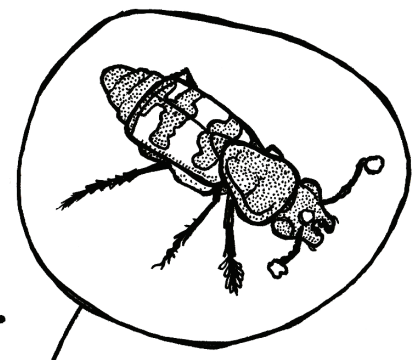
Megalopa

~2 mm

Juvenile

18 to
20 molts

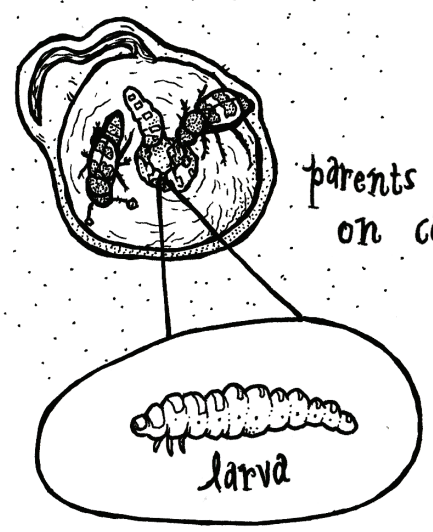
Burying beetle
(Nicrophorus investigator)



search for small carcasses

♂-♀ pair buries the carcass and mates

parents rear larvae on carrion



after carrion is depleted, parents leave and larvae overwinter as prepupae

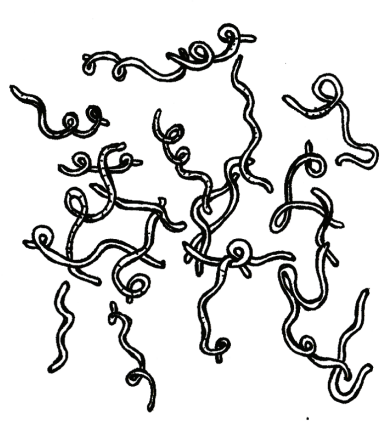
~10 months

pupate and emerge as adults

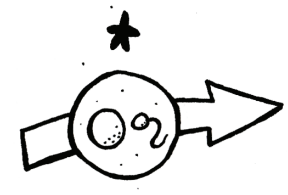
Samoan palolo worm

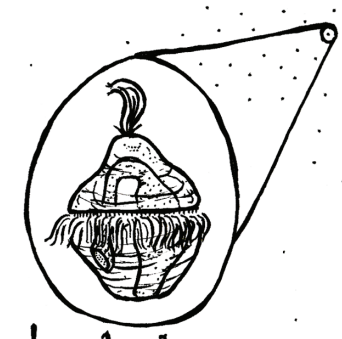
(Palola viridis, an annelid)

collected and prized as delicacy



epitokes disintegrate, releasing egg or sperm

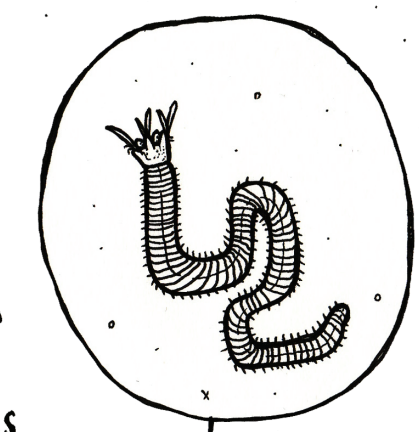




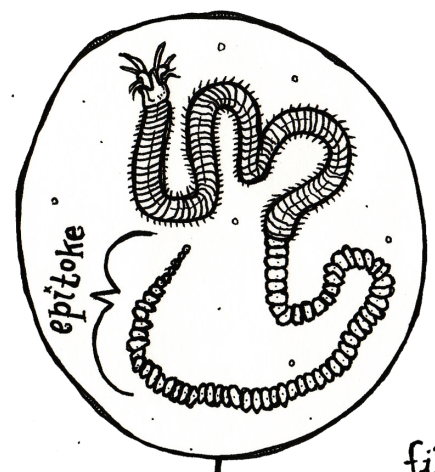
trochophore larva

plankton

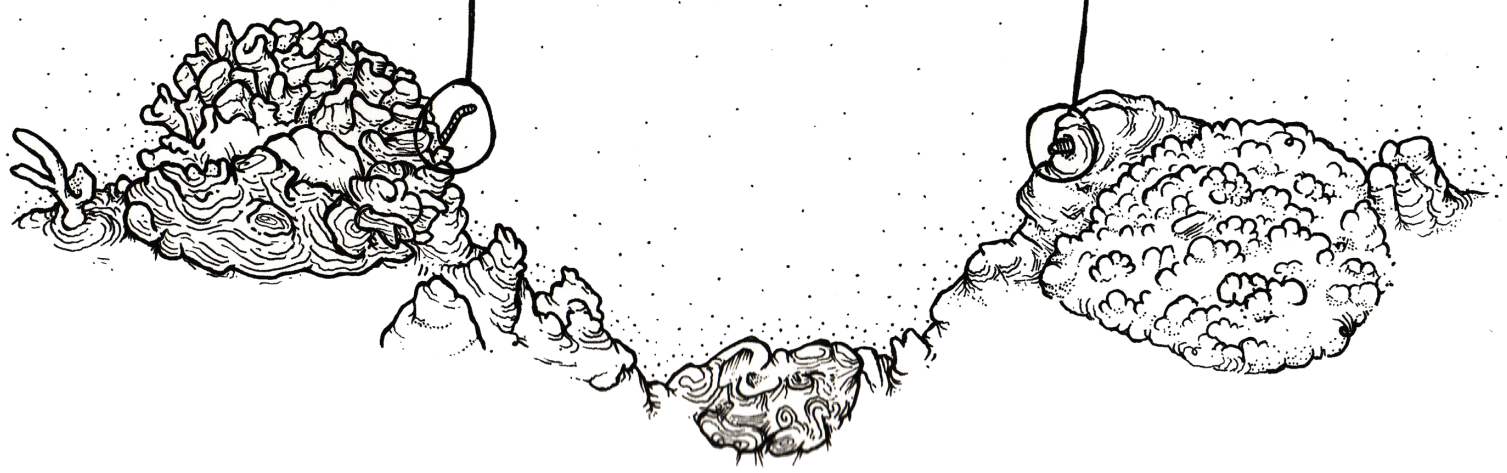
develops into adult and settles in reef



Worm buds swimming, gamete-filled chunk of body called epitoke

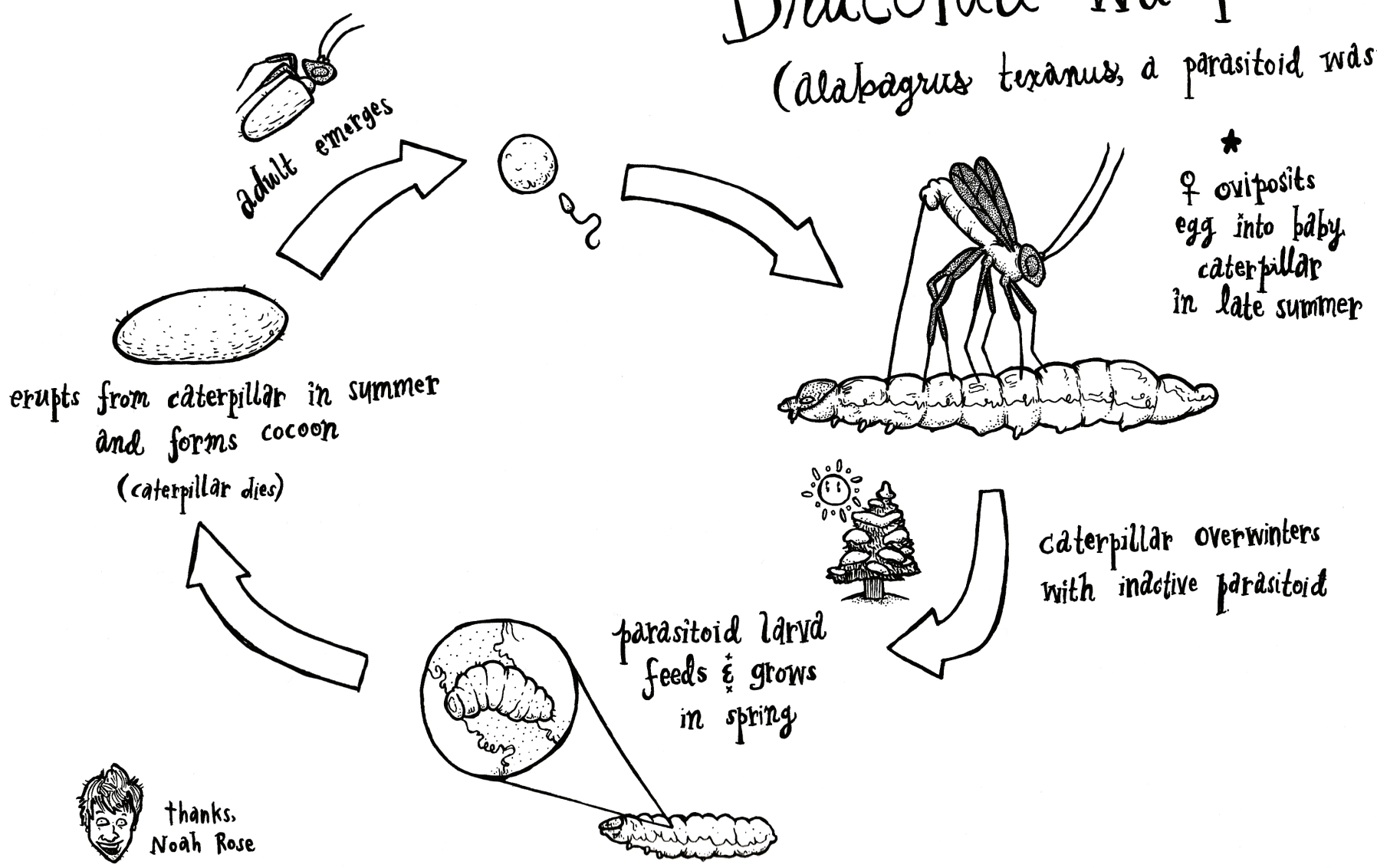


on one October or November night, mass numbers of worms release their epitokes (synchronized to lunar cycle)



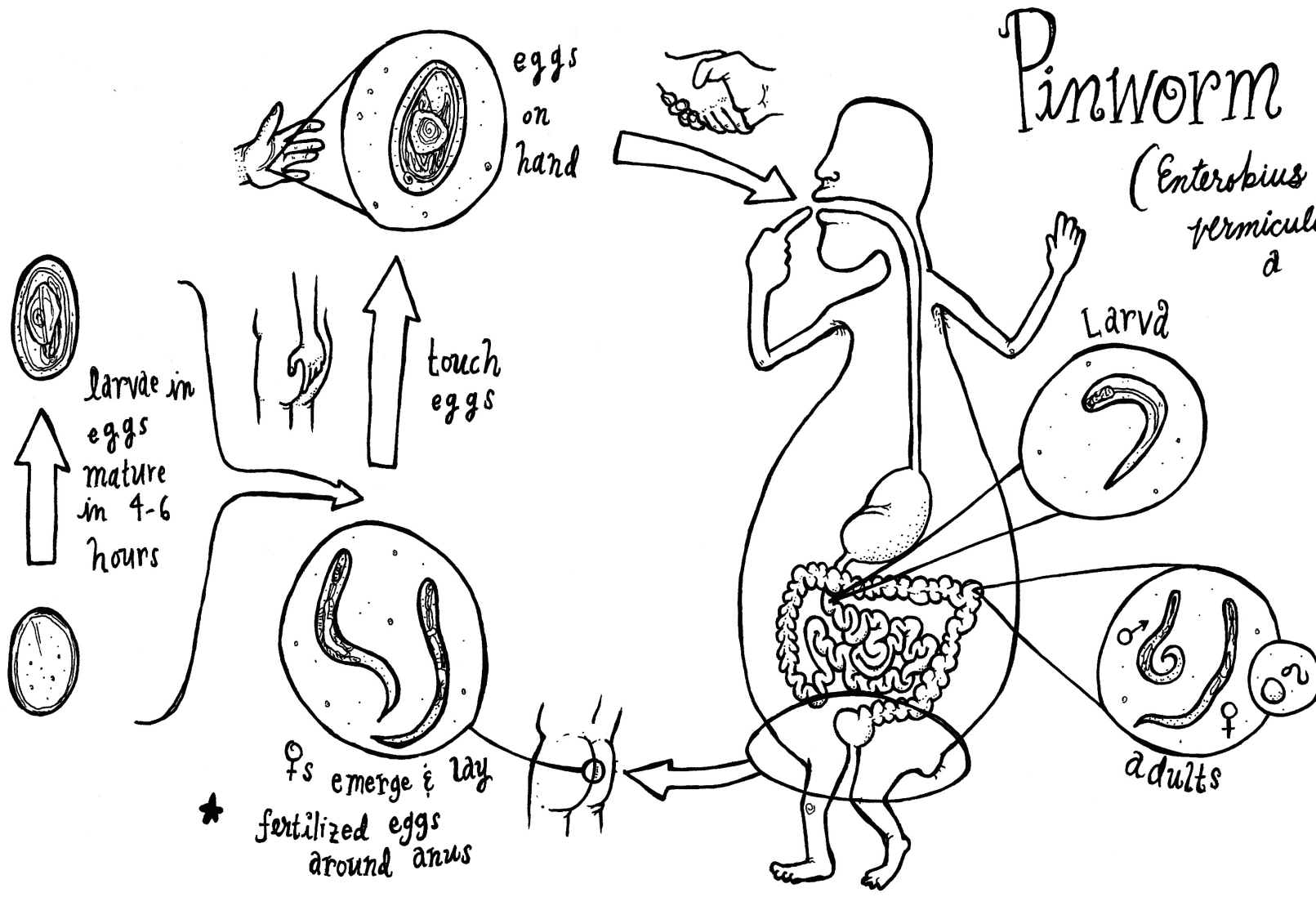
Braconid wasp

(Alabagrus texanus, a parasitoid wasp)



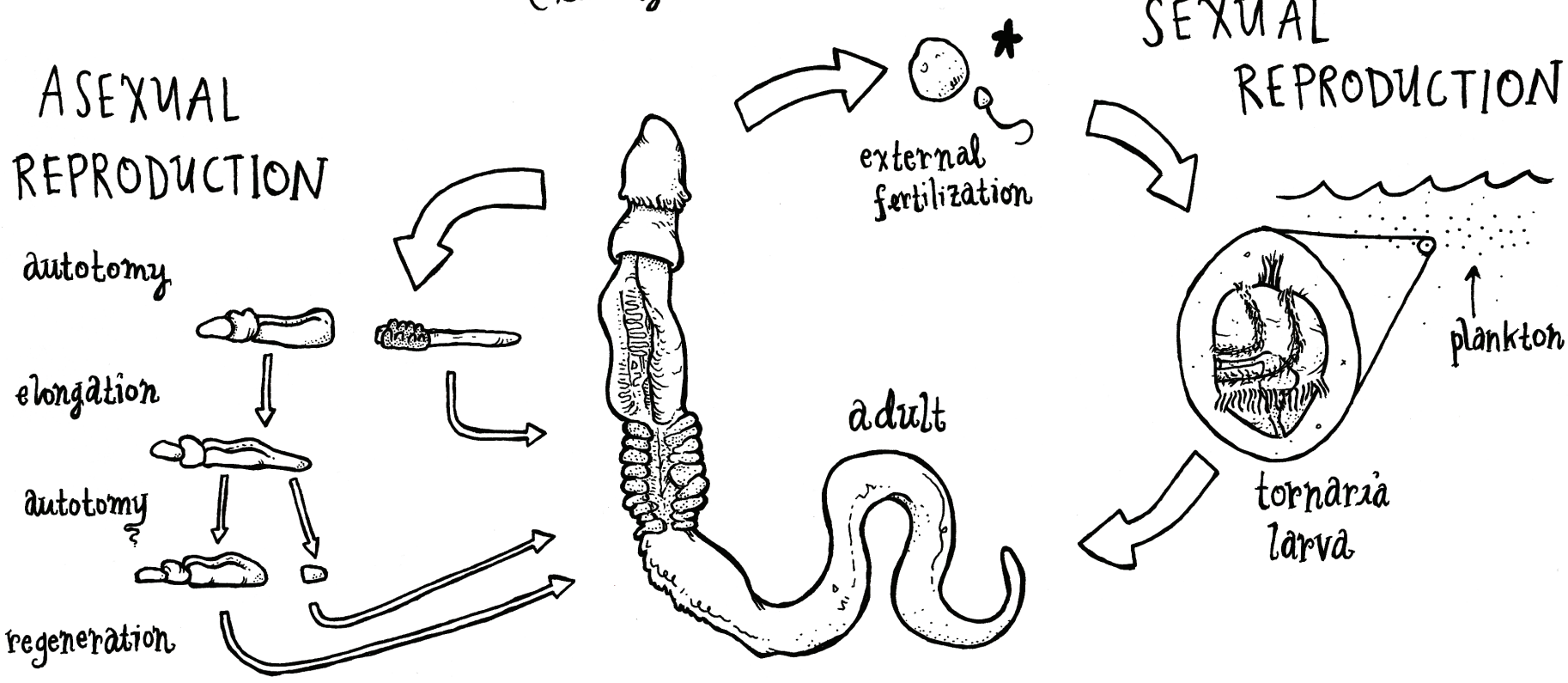
Pinworm

(Enterobius vermicularis, a nematode)



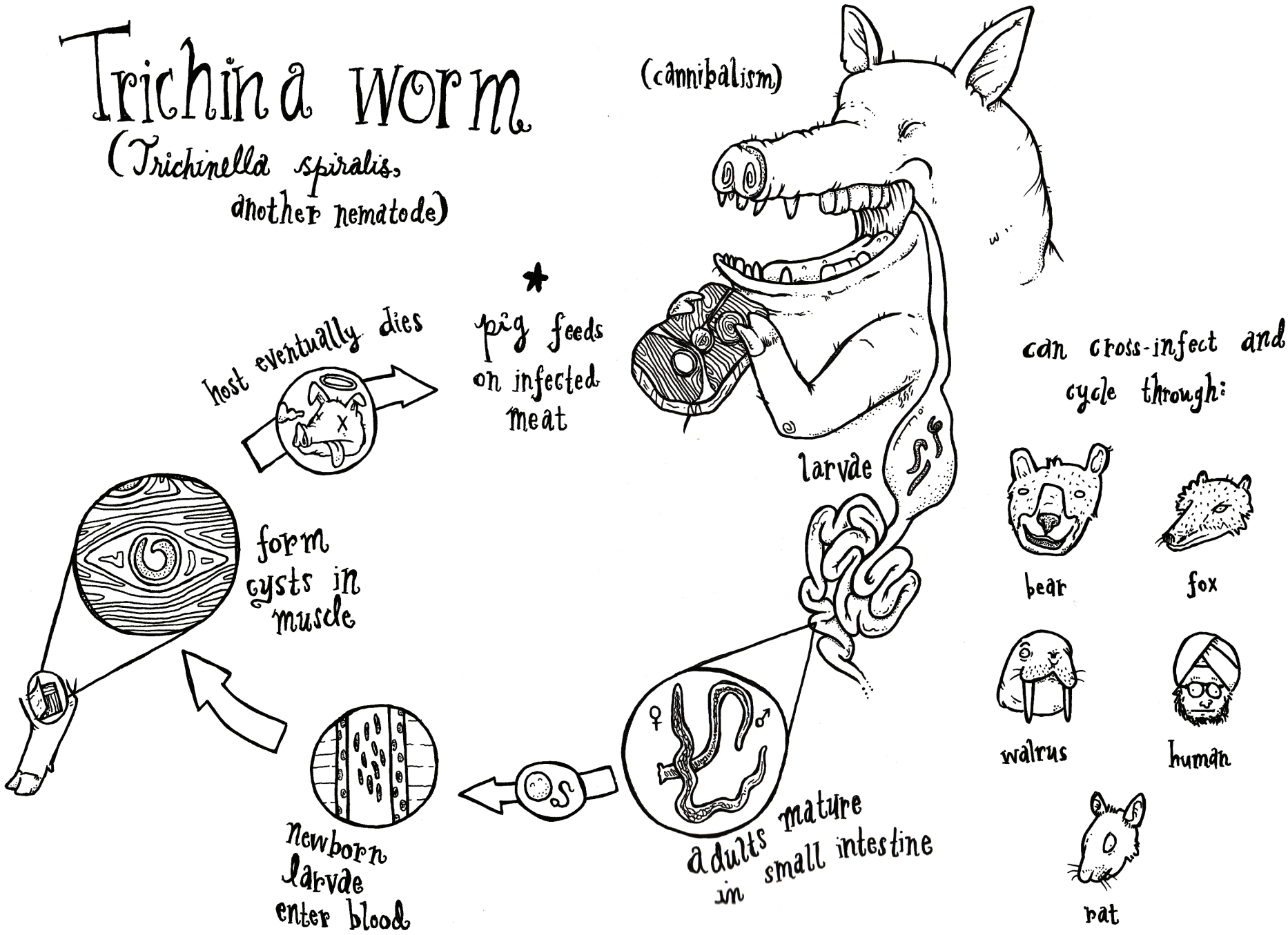
Acorn worm

(Balanoglossus simodensis)



Trichina worm

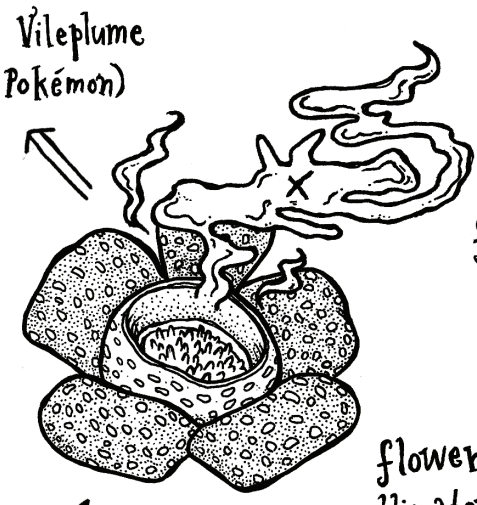
(Trichinella spiralis, another nematode)



Corpse flower

(Rafflesia arnoldii, a parasitic plant)

inspired Vileplume (a Pokémon)

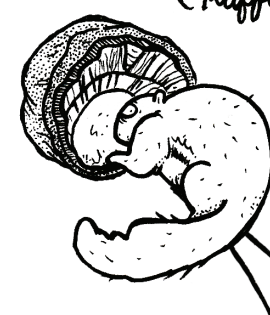


flower opens

flower* attracts pollinators with odor of decaying flesh

flies pollinate

fruit develops

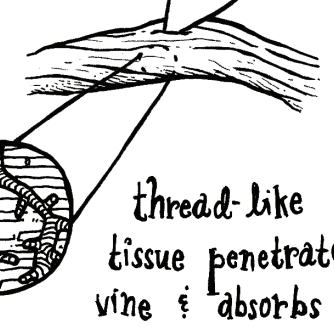


tree shrews feed on fruit

disperse seeds in scat

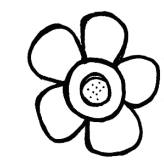
seed

★ invades vine (Tetrastigma)



thread-like tissue penetrates vine & absorbs nutrients

* largest flower in the world



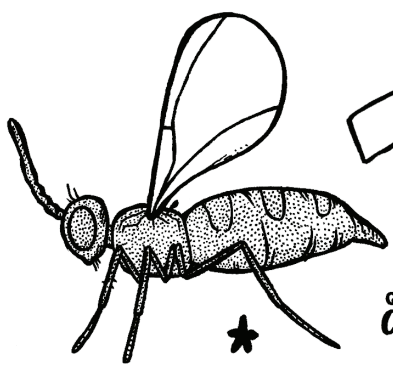
↑ my head

bud emerges

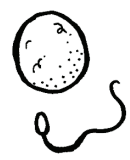
Mushroom cecid

(Mycophila speyeri, a mushroom-loving fly)

adults find food (mushrooms)



adult



larva

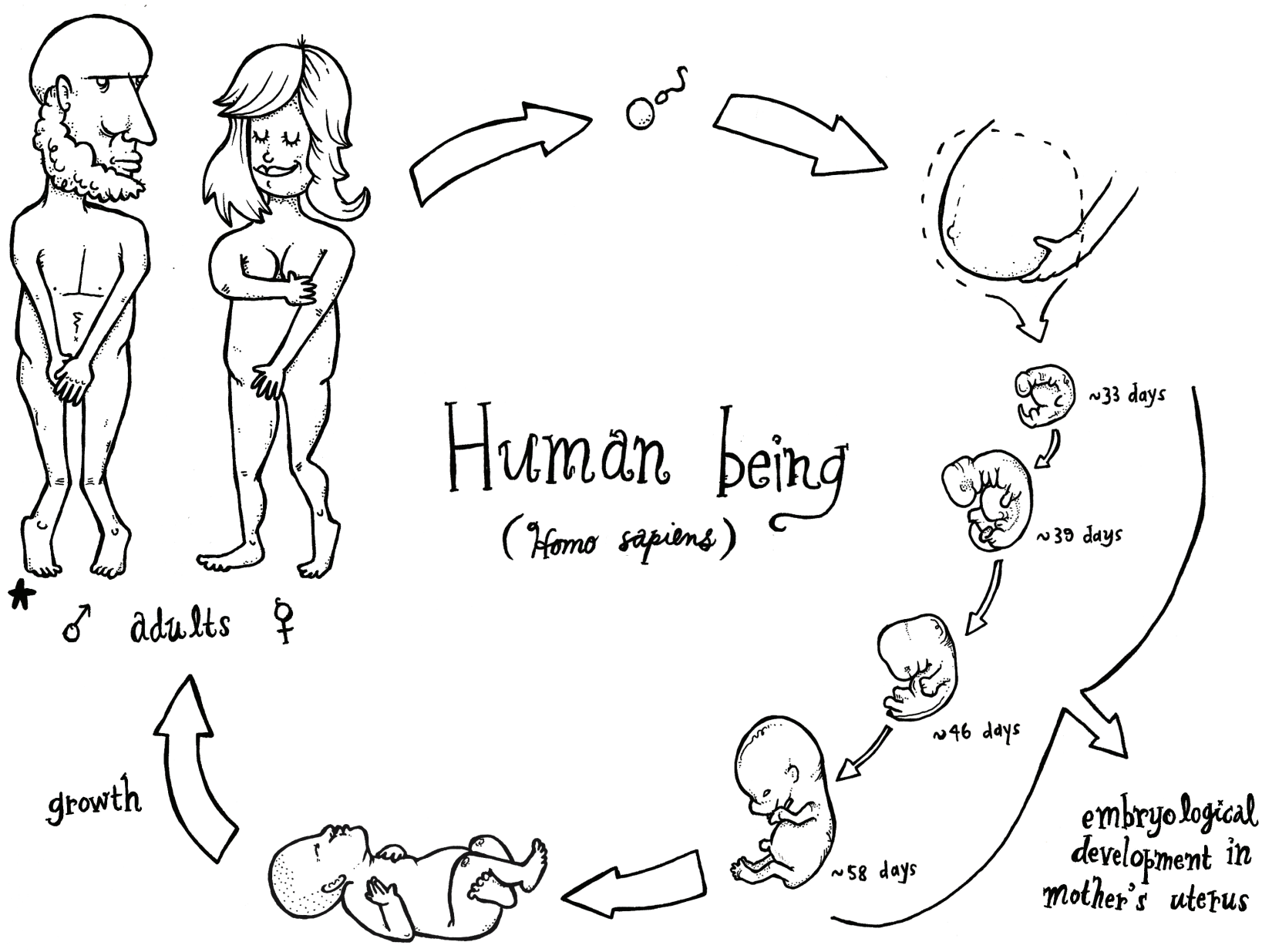
eat their way out of mother

"daughter" larvae develop asexually within "mother" larva

pupa

pupate after larvae fully consume mushroom

Check out S. J. Gould's essay, "Organic Wisdom, or Why Should a Fly Eat Its Mother from Inside"



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This pamphlet would've been impossible without the valuable help and guidance of Casey Dunn. Learn more about the unexpected world of biology at creaturecast.org.

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