Triodontophorus (T.) brevicauda

50 µm

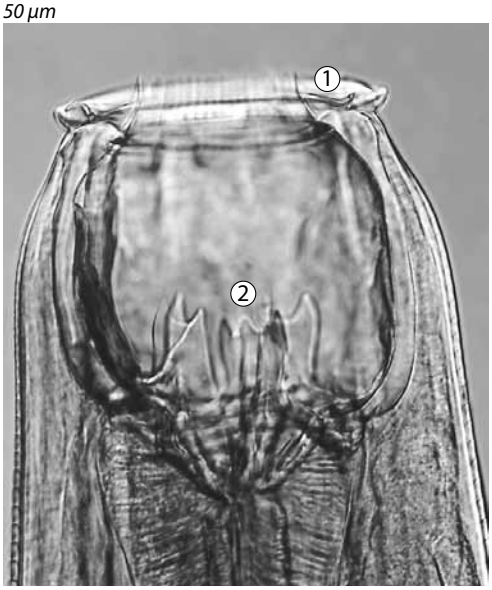

Figure 33a
Head
1. right-side-up saucer
2. grooved teeth

100 µm

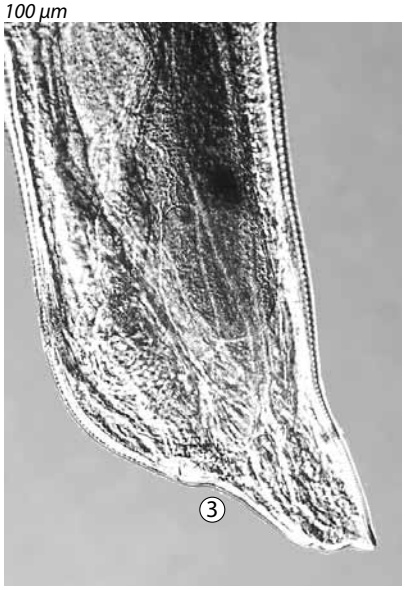

Figure 33b
Female tail
3. short

100 µm

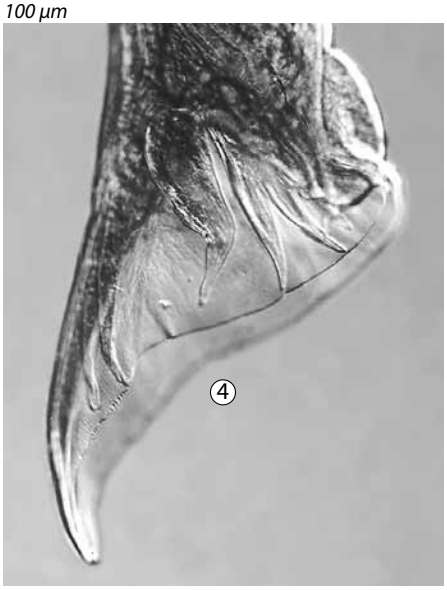

Figure 33c
Male tail
4. long bursa

Size: large
Preferred site: ventral colon
Represents <1% of population

Triodontophorus (T.) spp. is a genus involving four species: *T. brevicauda*, *T. nipponicus* (page 35), *T. serratus* (page 36), and *T. tenuicollis* (page 37). I will discuss them in alphabetical order.

T. brevicauda is the shortest but appears to be the **stoutest** of the *Triodontophorus* spp. This species can be identified right away as one of the *Triodontophorus* spp. because it is large and the buccal capsule is round. You have to look no farther than the buccal capsule to identify this species, because it contains what appear to be **four teeth** on the floor, or two pair of split teeth. The **teeth are not denticulated** (jagged), but each has a **U-shaped groove in the middle**. The top of its head is shaped like a **saucer that is right side up**; if you were to pour milk into the saucer, it would not spill.

This species gets its name (*brevicauda*) because of its **stubby and ugly female tail**, which does not taper, but comes abruptly to an end. By contrast, the dorsal ray of the male is quite long.

Distinguishing Characteristics:

- shortest and stoutest of the *Triodontophorus* spp.
- large
- round buccal capsule
- appears to have four teeth on the floor, or two pair of split, smoothly grooved teeth
- top of its head shaped like a right-side-up saucer

Triodontophorus nipponicus

50 µm

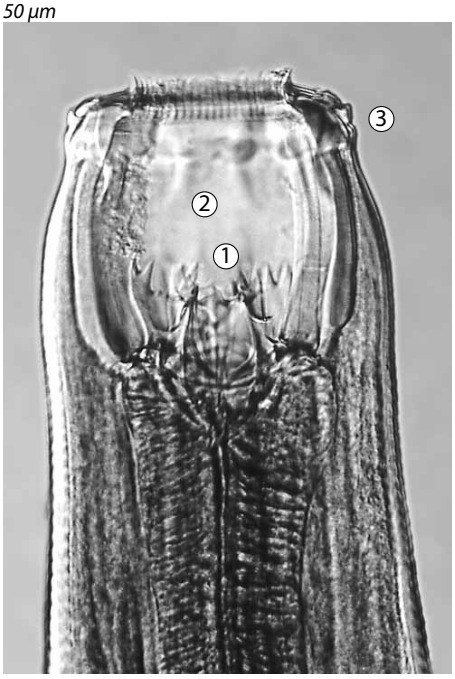

Figure 34a
Head
1. grooved teeth
2. oval-shaped capsule
3. lop-eared

100 µm

Figure 34b
Female tail
4. sharply pointed

100 µm

Figure 34c
Male tail

Size: large
Preferred site: ventral colon
Represents <1% of population

This species is very rare and has been found only a couple of times in Kentucky. It was first identified as *Triodontophorus minor* from other areas and reported as such, but Lichtenfels (1975) determined that it was misidentified and was actually *T. nipponicus*. This species is **almost identical** to *T. brevicauda* (basically the same size and similar buccal capsule and smoothly grooved teeth) with a few exceptions. It is the only species of the four *Triodontophorus* whose **buccal capsule is a little bit deeper than wide**, making it slightly oval and not truly round. The most striking feature that identifies this species is that the sides of the top of its head do not have the turned-up saucer look of *T. brevicauda.* Instead, its head appears to have **tiny ears** at the upper sides that **do not match**; one ear is up, the other is down, which gives it a **lopsided** appearance.

Although the buccal capsule of this species is similar to *T. brevicauda*, the female tails are just the opposite. The *Triodontophorus nipponicus* female tail tapers to a definite point. The male bursa is quite large and has a long dorsal ray but not nearly as long as *T. brevicauda*.

Distinguishing Characteristics:

- buccal capsule is slightly oval and not truly round
- its head does not have the turned-up saucer look of *T. brevicauda*
- head appears to have tiny unmatched ears at the upper sides that give it a lopsided appearance

Triodontophorus serratus

50 µm

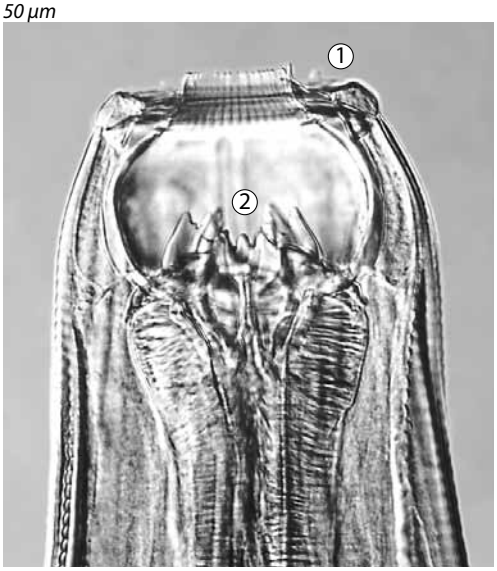

Figure 35a
Head
1. inverted saucer
2. denticulated teeth

100 µm

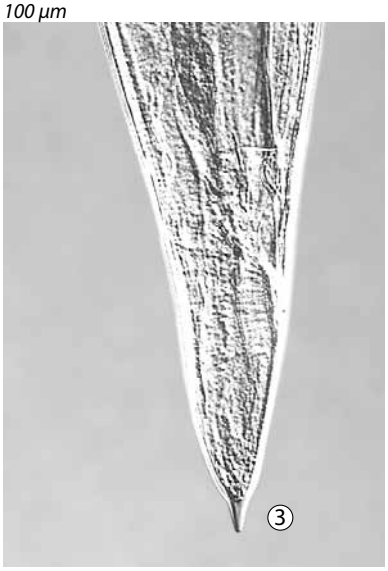

Figure 35b
Female tail
3. sharply pointed

100 µm

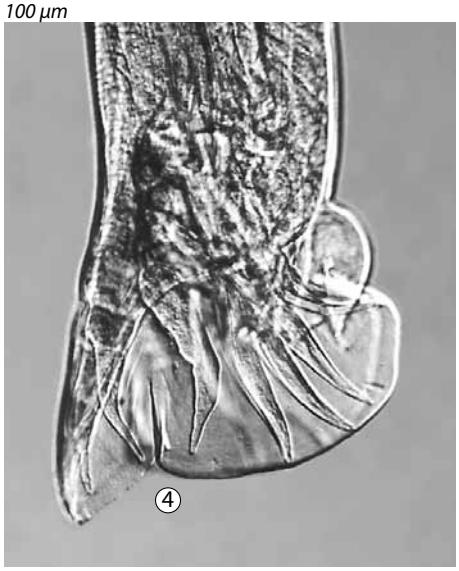

Figure 35c
Male tail
4. short bursa

Size: large
Preferred site: ventral colon/dorsal colon
Represents <1% of population

This species has a buccal capsule similar to the other *Triodontophorus* spp. It is definitely round, and there are **four** (or two split) **teeth** on the floor of the capsule, but the **teeth** differ from those of *T. brevicauda* and *T. nipponicus* in that they **are denticulated** (jagged) on the surface. Looking at the head of this species, I see that the **saucer has been turned upside down**, and if you were to pour milk into it, it would spill.

The **female** has a very long **tail, tapering to a point**. However, the dorsal ray of the male **bursa** is very short compared to the long dorsal rays of the males of the first two species.

Distinguishing Characteristics:

- teeth are denticulated, unlike those of *T. brevicauda* and *T. nipponicus*
- head looks like an inverted saucer that would not hold liquid

Triodontophorus tenuicollis

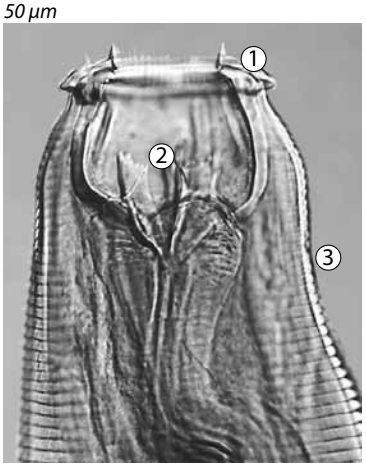

Figure 36a
Head
1. flat dish
2. jagged teeth
3. serrated cuticle

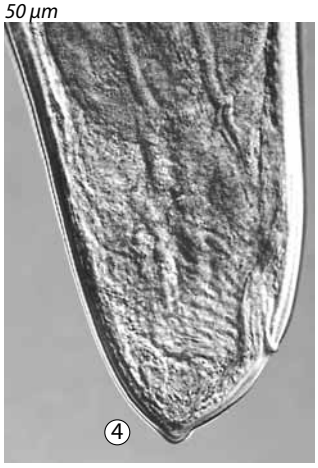

Figure 36b
Female tail
4. fat and blunt with nipple

Figure 36c
Female tail and head (note: tail is broader than head)

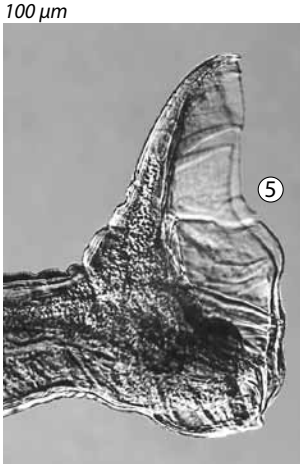

Figure 36d
Male tail
5. bursa at right angle to body

This species is one of the few "small strongyles" that cause some apparent damage as an adult in the mucosa of its host. It can be found in the dorsal colon in little **ulcerated pockets**. Fortunately, this species does not appear in large numbers because a few specimens of this species can do some damage; large numbers of them could prove devastating because the mucosa of the dorsal colon is much thinner and not tough like that in the cecum and ventral colon, and this may be why this species likes the dorsal colon.

This species is probably the easiest to identify. It is **thin** compared to the other species, which makes it **appear longer than it is**, even though it is longer than *T. brevicauda* and *T. nipponicus* but not as long as *T. serratus*. It is also unusual in that it is the only cyathostome species, especially the female, that appears to be **smaller at the anterior than the posterior end**. It starts out thin and gets "fatter" as it "goes south." The buccal capsule is round like the other *Triodontophorus* spp., but the **teeth** are very irregularly shaped and denticulated (the pattern of the denticulations resembles someone with a **bad tooth problem**). Looking at the top of the head, I see a **flat dish**—not upside down or right side up, just flat. However, none of these characteristics is necessary to identify this species because it has one characteristic the other species do not have: its **cuticle** is **conspicuously serrated**, and each serration overlaps the one just posterior to it. This serration is most prominent on the anterior half of the cuticle and wanes toward the posterior.

The female has a fat, blunt tail with a nipple on the end, and the male bursa has a moderately long dorsal ray that is at a right angle to its body.

Distinguishing Characteristics:

- cuticle is conspicuously serrated
- thin compared to the other species, which makes it appear longer than it is
- the only cyathostome species that appears to be smaller at the anterior than the posterior end
- buccal capsule is round like the other *Triodontophorus* spp., but the teeth are very irregularly shaped and denticulated
- top of the head looks like a flat dish that is neither upside down nor right side up

Size: large
Preferred site: dorsal colon
Represents <1% of population