

PLANARIANS OF THE REELFOOT LAKE REGION IN TENNESSEE¹

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During three weeks in August, 1937, the writer collected planarians in and about Reelfoot Lake, Obion County, Tennessee. This paper includes a list of the species found and certain observations on the feeding habits and enemies of *Euplanaria tigrina*.

ORDER TRICLADIDA

FAMILY PLANARIIDAE

Euplanaria tigrina (Girard) 1850 (syn. *Planaria maculata* Leidy). This was the only triclad found in Reelfoot Lake. Numerous specimens were collected from submerged vegetation in Upper Blue Basin and Bayou du Chien.

Curtisia foremanii (Girard) 1852 (syn. *Planaria simplissima* Curtis). A single specimen was obtained from a spring-fed rivulet at Fremont in Obion County. Identification was based on the rounded head and brown color.

Phagocata gracilis (Haldeman) 1840. Numerous specimens up to 12 mm. in length were found in springs and spring-fed rivulets at various points in Obion County. The large size, dark color, truncate head, and many pharynges made identification certain.

FOOD AND FEEDING BEHAVIOR

Organisms taken from water in which the planarians were found were placed in small dishes containing a few planaria that had not fed for several days. *Euplanaria tigrina* was observed to feed on amphipods (*Hyalella knickerbockeri* (Bate)), cladocerans (*Simocephalus*) and small annelids.

When *Euplanaria tigrina* contacts food it feels about on the object with the edges of its head and then glides along until the mouth is near the food. Sometimes, if the prey is small, the worm encircles it with the ventral side next to the food. When an amphipod is attacked, the planarian attaches its head to the bottom of the dish and

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covers the prey with the rest of its body. The dexterous proboscis is protruded and may be seen feeling over the surface of the amphipod's body. Finally the proboscis enters the mouth of the amphipod and explores around inside the exoskeleton, sucking up the contents. If other planarians are near, they usually join in the feeding. One by one the flatworms cease feeding and glide away leaving the prey an empty shell.

During and for some time after ingestion of food, movement of particles is plainly discernible in the intestinal tract. A rush of particles anteriorly is followed by a surge backward toward the pharynx and along one or other of the posterior branches. The junction of the ends of the posterior branches is clearly demonstrated for the particles moving to the posterior extremity may be seen to turn sharply and flow forward along the other side.

ENEMIES

Damselfly and dragonfly nymphs were found in the same habitat with *Euplanaria tigrina*. Damselfly nymphs (*Ischnura*) were placed in a dish with a few planarians. The next day the worms were missing. More flatworms were added. In a few minutes a nymph seized a planarian and bit a segment out of the middle portion of the body. In several instances the damselfly nymphs were seen in sizes and consume *Euplanaria tigrina*.

A dragonfly nymph (*Epicordulia princeps*) was placed in a dish with a few planarians. As one came near the nymph snapped off its head. Later it was seen to seize and devour an entire worm.

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