edgment of his untiring work with, and published articles on, the Olividae, as well as for the kindly interest he has taken in my own collection of *Oliva*, and the assistance given me in identifying specimens.

This variety is figured by Marrat in Sowerby's Thesaurus Conchyliorum, Vol. IV, pl. 7, f. 110. It is represented in my collection by six specimens of which one, no. 1652, has to be selected as the type.

COLLECTING IN THE VICINITY OF NEWARK, NEW JERSEY.

BY FRED TABLEMAN.

During 1917–1918 I decided to study the molluscan fauna in the vicinity of Newark, N. J. Limiting myself to twenty cents car fare for each trip I started to see what I could find within this area.

Most of the work was done in Essex County, in one instance within walking distance from my home. Visiting the Newark Meadows I found a station for *Polygyra thyroides* by seeing some dead shells. I looked for live specimens but could not find any owing to the density of the underbrush and flies. Going later when they were hibernating I collected about 150 and could have gotten more. They live under debris that is overgrown with the balloon-vine on which I believe they feed. This station has been destroyed by the opening of the Port Newark Terminal.

The next place visited was Great Notch Brook, Upper Montclair. On this brook is a small pond formed by a dam at the head of which in a marshy place I found *Lymnaea palustris* in great quantities, and also one specimen of *Pseudosuccinea columella*. I was fishing at the time and ran short of bait, so turning over a rotten log I got not only bait but a nice lot of *Pyramidula alternata*, which are now in my collection. Going to the same place later in the season and exploring one of the mountains as far as possible, I obtained a few small *Pyramidula alternata* and two *Polygyra albolabris*, one dead and one living.

Going to Cable Lake, West Orange, I collected *Planorbis antrosus*. The lake is a small one situated on the top of a mountain, the shore of which is partly sand and stones. Here is the home of the Planorbes, which are covered with algae.

The Rahway River, in Union Co., was next visited in search of Unios. Two specimens of *Anodonta cataracta* in perfect condition were secured, but further search failed to produce more of that species; but about fifty *Unio complanatus* were obtained. I also collected *Physa heterostropha* along the bank in company with *Lymnea palustris*, and in the shallows *Campeloma rufum* was found in company with a small variety of *Planorbis trivolvis* and *Sphaerium* sp.

The last three trips to Bloomfield proved the best. The collecting was done in Great Notch Brook which flows through part of the town where it comes from Brookdale. Starting at the end of the trolley line and working up stream I found small dead *Planorbis trivolvis* that had been washed in hollows and crevices among the stones. Live ones were gathered farther up stream and also *Unio complanatus*, which I will compare with the Rahway River shells later.

Going still further up stream, I found the first specimens of *Goniobasis virginica* in the shallow water near the bank; also broken *Campeloma decisum*, later two perfect specimens were found. The Goniobasis were large specimens ranging up to an inch in length, many of them so eroded as to be hardly recognizable except by the animal itself. Still further up the *Goniobasis* became more plentiful and also *Lymnaea palustris*, both alive and dead in the drift, which was composed of the dead of both and a few valves of Unios.

The Lymnaeas were found on the stems of water plants and also floating on the surface, foot up; the Goniobasis were clinging to the stones and crawling on the bottom. Both the smooth and ribbed variety (*multilineata*) were found, both banded and plain. More Unios were found, so I returned home satisfied with the afternoon work.

On the last trip I found but few specimens of *Goniobasis*. A heavy rain a few days before had made the stream moderately high, and the few specimens that I obtained were buried ver-

tically in the sandy bottom with the body whorl only exposed. I do not know whether they buried themselves or the shifting sands did.

The *Unio complanatus* collected varies greatly with the locality. Those from the Rahway River are cleaner than those from Notch Brook and are not so ventricose. The anterior end is more elongate than the brook form, and the sexes are hardly distinguishable. The Notch Brook females are much shorter than the males and more truncated, as the following measurements of the largest specimens show:

Locality.	Sex.	Length.	Breadth.	Thickness.
Rahway River . . .	Male.	70 mm.	35 mm.	18 mm.
	Female.	75 mm.	38 mm.	20 mm.
Great Notch Brook.	Male.	72 mm.	38 mm.	19 mm.
	Female.	63 mm.	40 mm.	19 mm.

Having collected only in two localities this year I obtained the following species. From Branch Brook Park, Newark, *Planorbis parvus* and *Planorbis antrosus*. These species were found in shallow water near the shore.

At Halcyon Park (Bloomfield) in a small pond, if it can be called such, I found large *Planorbis trivolvis*, the largest of which measures 25 mm.; also *Pseudosuccinea columella* and a species of *Ancylus* which I have not identified. I believe the shells in this pond came with the water-lilies that are growing there.