

About the middle of April she found, in a marsh near Cold Spring, N. Y., a *Ch. picta* about two and a half inches long which had a black mark on its plastron. The mark, each side of the central line, is irregular, about a quarter of an inch wide, and beginning at the anterior part of the anal shield extends an inch and ends on the posterior portion of the pectoral shield.

It may not be rare to find eastern turtles marked so, but she had never seen one, either smaller or larger than this specimen, among all the specimens she had examined.

*On Flukes infesting Mollusks.*—Prof. LEIDY remarked that our common fresh-water mollusks, especially the gastropods, were much infested with flukes. These appear to be prevalent during the latter part of the year and absent during the earlier part. Drawings were exhibited of the sporocysts and cercariæ of two species of flukes infesting *Planorbis parvus*.

The species were named and described as follows:—

MONOSTOMA (GLENOCERCARIA) LUCANICA.

*Sporocyst* bright orange colored, cylindroid in form, with obtusely rounded extremities. Pharynx globular, from which is suspended a long cylindrical pouch-like stomach, black in hue, extending two-thirds the length of the body. Body cavity distended with cercariæ in various stages of development. *Cercaria* white; with a compressed ovoid body emarginate behind; tail cylindro-conical, pointed, as long or longer than the body, often constricted so as to appear more or less moniliform. Eyes two, black; with an intermediate black pigment spot looking like a third eye, and a number of smaller pigment spots scattered in the vicinity of the eyes. No acetabulum. Pharynx globular; intestine bipartite. A distinct pore situated ventrally near the root of the tail.

Length of sporocysts from  $\frac{3}{4}$  to 1 mm. Length of cercariæ  $\frac{1}{2}$  mm.

The sporocyst is quite active, elongating and shortening; retracting and projecting the pharynx. It also exhibits strong peristaltic movements, in which the body becomes constricted tightly just back of the pharynx or in any position beyond. The contraction gradually extending backward and dividing the body cavity into two compartments, the cercariæ are suddenly slipped through the constriction, one after the other from the posterior to the anterior compartment. The movements of the cercaria, liberated from the sporocyst, consist mainly in elongation and narrowing and shortening with widening of the body. Elongation of the body causes it to exceed the length of the tail. At times the lateral extremities of the posterior emargination of the body are prolonged into short conical appendages.

This fluke occurs abundantly beneath the muscular tegument, among the lobes of the liver, and folds of the intestine of *Planorbis*

Leidy

*parvus*. Upwards of fifty of the sporocysts cercariæ have been removed from a single *Planorbis*.

DISTOMA (GYMNOCEPHALA) ASCOIDEA.

*Sporocyst* white. Head distinct from the body, varying in the proportion of length to breadth in different degrees of contraction. Body cylindroid, with a long, narrow, conical appendage, beyond which it extends into a tail-like prolongation. Pharynx globular, with two equidistant organs (undetermined in character, perhaps ganglia). Stomach a flask-like, situated a short distance from the head into the body, reaching the middle of the latter even in its contracted condition; bright brown in color. Body cavity distended with numerous cercariæ; the immature ones occupying the anterior portion. An orifice at the extremity of a blunt process communicates with the body cavity just back of the head; with an obcordate, or when elongated into a long, narrow, cylindro-conical pointed tail. Pharynx globular, and slightly constricted from the rest of the body, the part broadly emarginate. A ventral acetabulum situated to the centre of the body, and between it and the tail is an oval pore. Eyes none. Pharynx globular, and divided into two divisions of the intestine extending about two-thirds of the body.

Length of sporocysts of different ages, from  $\frac{1}{2}$  to  $\frac{3}{4}$  mm.

In motion the sporocysts contract the head and tail to nearly equal length and breadth, and it may be extended to be double the length of the breadth. The body shortens in the same manner. Cercariæ were frequently seen escaping from the snout-like projection of the head. The cercariæ in motion are extended so far as to be nearly as wide as the root of the tail. The ventral part of the tail is constricted into a conical appendage or expanded into a tail-like prolongation. The tail becomes longer, narrower, and more slender, and beaded.

This fluke occupies a similar position in the body of the former, and has been found in equal numbers. It has not been found associated in the same form of the ascoid fluke, encysted, was found in *Planorbis parvus*, without any traces of the fluke being obvious.

A free swimming cercaria, identical in character with the ascoid fluke, has been observed in water, which contained individuals of *Planorbis parvus*, and *Limnæa stagnalis*. The cercaria agrees with the description of the fluke given by Nitzsch, found with various fresh-water mollusks.

middle of April she found, in a marsh near Cold  
a *Ch. picta* about two and a half inches long which  
ark on its plastron. The mark, each side of the  
irregular, about a quarter of an inch wide, and be-  
anterior part of the anal shield extends an inch  
e posterior portion of the pectoral shield.  
be rare to find eastern turtles marked so, but she  
one, either smaller or larger than this specimen,  
specimens she had examined.

*Infesting Mollusks.*—Prof. LEIDY remarked that our  
fresh-water mollusks, especially the gastropods, were  
with flukes. These appear to be prevalent during  
of the year and absent during the earlier part.  
exhibited the sporocysts and cercariæ of two  
species infesting *Planorbis parvus*.  
were named and described as follows:—

(LEUCOCERCARIA) LUCANICA.

right orange colored, cylindroid in form, with ob-  
d extremities. Pharynx globular, from which is  
ong cylindrical pouch-like stomach, black in hue,  
two-thirds the length of the body. Body cavity dis-  
reariæ in various stages of development. *Cercaria*  
a compressed ovoid body emarginate behind; tail  
al, pointed, as long or longer than the body, often  
as to appear more or less moniliform. Eyes two,  
an intermediate black pigment spot looking like a  
a number of smaller pigment spots scattered in the  
eyes. No acetabulum. Pharynx globular; intes-  
A distinct pore situated ventrally near the root of

sporocysts from  $\frac{3}{4}$  to 1 mm. Length of cercariæ  $\frac{1}{2}$

first is quite active, elongating and shortening; re-  
projecting the pharynx. It also exhibits strong  
movements, in which the body becomes constricted  
back of the pharynx or in any position beyond. The  
actually extending backward and dividing the body  
into compartments, the cercariæ are suddenly slipped  
restriction, one after the other from the posterior to  
compartment. The movements of the cercaria, libe-  
the sporocyst, consist mainly in elongation and nar-  
rowing with widening of the body. Elongation  
uses it to exceed the length of the tail. At times  
remities of the posterior emargination of the body  
into short conical appendages.

occurs abundantly beneath the muscular tegument,  
as of the liver, and folds of the intestine of *Planorbis*

*parvus*. Upwards of fifty of the sporocysts distended with cer-  
cariæ have been removed from a single *Planorbis*.

DISTOMA (GYMNOCEPHALA) ASCOIDEA.

*Sporocyst* white. Head distinct from the body, campanulate,  
varying in the proportion of length to breadth, according to the  
degree of contraction. Body cylindroid, with a pair of lateral  
conical appendages, beyond which it extends as a cylindro-conical  
tail-like prolongation. Pharynx globular, encircled with six  
equidistant organs (undetermined in character, probably teeth?  
or perhaps ganglia). Stomach a flask-like pouch extending but  
a short distance from the head into the body cavity, and not  
reaching the middle of the latter even in its most shortened con-  
dition; bright brown in color. Body cavity distended with nume-  
rous cercariæ; the immature ones occupying the tail-like prolon-  
gation. An orifice at the extremity of a blunt conical snout com-  
municates with the body cavity just back of the head. *Cercaria*,  
white; with an obcordate, or when elongated a clavate body, and  
a long, narrow, cylindro-conical pointed tail. Cephalic end trian-  
gular, and slightly constricted from the rest of the body; posterior  
part broadly emarginate. A ventral acetabulum near or posterior  
to the centre of the body, and between it and the root of the tail  
an oval pore. Eyes none. Pharynx globular; gizzard small;  
divisions of the intestine extending about two-thirds the length  
of the body.

Length of sporocysts of different ages, from  $\frac{1}{2}$  to 1 mm. Length  
of cercariæ  $\frac{1}{4}$  to  $\frac{2}{3}$  mm.

In motion the sporocysts contract the head so that it may be of  
nearly equal length and breadth, and it may be extended so as to  
be double the length of the breadth. The body also elongates and  
shortens in the same manner. Cercariæ were observed in several  
instances escaping from the snout-like projection of the body  
cavity back of the head. The cercariæ in movement elongate ex-  
cessively, and the body may be extended so as to be almost as  
narrow as the root of the tail. The ventral disk is often pro-  
truded into a conical appendage or expanded into a broad cup.  
The tail becomes longer, narrower, and more pointed, or shorter,  
wider, and beaded.

This fluke occupies a similar position in the *Planorbis* as in the  
former, and has been found in equal numbers, but the two species  
have not been found associated in the same individual. The dis-  
toma form of the ascoid fluke, encysted, was also observed in  
*Planorbis parvus*, without any traces of the generative organs  
being obvious.

A free swimming cercaria, identical in character with that of the  
ascoid fluke, has been observed in water, which contained many  
individuals of *Planorbis parvus*, and *Limnæa clodes*. The free  
cercaria agrees with the description of the *Cercaria minuta*,  
Nitzsch, found with various fresh-water mollusks of Europe.

Prof. L. further exhibited drawings of a Distoma, the *Rhopalocerca tardigrada*, Diesing, from the mantle of *Anodon fluviatilis*; a second the *Heterostomum echinatum*, Diesing, from the oviduct of *Paludina decisa*; and a third from *Helix arborea*, thus described:—

**DISTOMA APPENDICULATA.**

Translucent white, band-like, widest in front and rounded at the head, tapering behind and truncate at the end. Pharynx and ventral disk large and nearly equal and about  $\frac{1}{2}$  mm. diameter. The gizzard comparatively large and oval. Intestine bifurcate with the branches parallel, and with an intermediate pouch-like appendage extending nearly half way to the position of the ventral disk. A posterior opening communicates with a pouch and a water vascular system. No traces of a generative apparatus observable. Length 1 mm.

Andrew C. Craig, William John Potts, John E. Cook, Chas. Zentmayer, Samuel L. Fox, Shippen Wallace, and Jos. D. Schoales, M.D., were elected members.

S. Fisher Corlies was elected a member of Council for the unexpired term of Dr. J. G. Hunt, resigned.

The following papers were ordered to be published:—

**NOTES ON THE NATURAL HISTORY OF FORT MACON VICINITY. (No. 3.)**

BY H. C. YARROW.

In the Proceedings of the Academy of Natural Sciences, 1871 a series of papers was commenced, by Dr. Coues, with the above title, and it was determined to continue from time to time until the fauna and flora of the locality had been observed—should be described, but owing to various circumstances the publication of certain of the papers was delayed until the present moment. It is now published in this time them under the joint authorship of Dr. Coues and the writer.

**FISHES.**

It will readily be seen, upon a perusal of a paper published in 1871 describing the situation of Fort Macon, Beaufort, North Carolina, and the adjoining waters, that the circumstances of its peculiarly attractive and interesting to the student of natural history affording an admirable field for obtaining specimens. A list showing that one hundred and seven specimens of fishes had been secured by Dr. Coues and the writer during their residence at that point.

In the identification of the specimens thanks are due to Prof. S. F. Baird, Prof. Theo. Gill, Prof. J. B. Silliman, and Prof. G. Brown Goode. The classification adopted are those adopted by Prof. Gill in his Catalogue of the Fishes of the East Coast of North America, Smithsonian Collection, No. 283, 1873. Local names are known, but these names are mostly those used by the fishermen of the region under discussion. Species marked with Y. were sent those secured by Dr. Coues, with Y. by Dr. Yarrow.

*Chilomycterus geometricus* (Linn.), Kaup.

Spiny Toad-fish. Sea Porcupine.

Tolerably common; found in nets and taken at the wharf. Size from four to six inches. Is not eaten.