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THE NAIAD FAUNA OF LITTLE DARBY CREEK IN CENTRAL OHIO.

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(Abstract)

Little Darby Creek, a tributary of Big Darby Creek of the Scioto River system, drains 176 square miles of glacial till plain in four west-central Ohio counties. It was studied as part of a larger survey now under way on the naiad fauna of the Scioto River drainage. A large dam soon to be constructed on Big Darby Creek will impound several miles of Little Darby and profoundly alter the habitat of the freshwater mussels which now inhabit this stream. Twenty sites were collected in the Little Darby drainage, and 22 species of naiads were found. These were:

***Fusconaia f. flava* (Raf., 1820).**
***Amblema plicata costata* (Raf., 1820).**
***Quadrula cylindrica* (Say, 1817).**
***Pleurobema clava* (Lam., 1819).**
***Pleurobema cordatum coccineum* (Con., 1836).**
***Elliptio dilatatus* (Raf., 1820).**
***Lasmigona costata* (Raf., 1820).**
***Lasmigona compressa* (Lea, 1829).**
***Anodonta grandis* Say, 1829.**
***Anodonta imbecillis* Say, 1829.**
***Alasmidonta calceolus* (Lea, 1829).**
***Alasmidonta marginata* Say, 1818.**
***Strophitus undulatus* (Say, 1817).**
***Anodontoides ferussacianus* (Lea, 1834).**
***Ptychobranchus fasciolaris* (Raf., 1820).**
***Carunculina parva* (Bar., 1823).**

Villosa iris (Lea, 1829).
Lampsilis fasciola Raf., 1820.
Lampsilis radiata siliquoidea (Bar., 1823).
Lampsilis ovata ventricosa (Bar., 1823).
Dysnomia triquetra (Raf., 1820).
Dysnomia torulosa rangiana (Lea, 1839).

All mussels collected alive in 1964 and 1965 from two stations below Mechanicsburg and which had 17 or more annular rings exhibited a peculiar interruption and later resumption of shell growth. Young specimens from these stations are perfectly normal. Specimens from all other stations are normal. Such a growth interruption might have been caused by some catastrophe, such as a brief but severe period of pollution in this section of stream. A local newspaper reported a heavy fish kill, presumably caused by accidental discharge of liquid fertilizer into the stream near Mechanicsburg, on May 26, 1956. It is possible that this fish-killing pollutant affected the mantle of the surviving mussels in such a way that this peculiar growth form resulted.