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8-10-2020

Annotated Checklist of the Fish Species Observed at the Gordon Natural Area (West Chester University, PA) 1997-2019. Version I

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Summary Data

Number of Taxa: 14 Species, in 13 Genera, 6 Families, and 5 Orders.

Description

Investigation of the ichthyofauna (i.e., fish) of the GNA began has a fairly long-history, but has been sporadic and the findings have been poorly archived. The earliest known research was undertaken by former WCU Biology Professor Win Fairchild. Regrettably, we only have his data from a single study (Butler & Fairchild 2005).

WCU graduate student Danielle DiFederico (one of Win Fairchild's students) conducted her Master's research in Plum Run in the early 2000. Following this, there was a long fallow period (with just a single observation having been recorded from 2005 through 2017).

In recent years, however, the Stroud Water Research Center has been conducting annual surveys in Plum Run within the boundaries of the GNA. Data from that research have been incorporated here. It is hoped that moving forward, ichthyological research will be a much more regular feature at the GNA.

Status/Threats

IUCN Status: Data are from the IUCN Red List of Threatened Species (IUCN 2020).

The GNA checklist was compared with the Pennsylvania Natural Heritage Environmental Review List (PNHP 2020). None of the eighty-eight fish species listed on the environmental review list are known to occur in the GNA. The checklist was also compared with species listed in the Chester County Natural Heritage Inventory (PNHP 2015). None of the fish species known for the GNA were listed as being of special concern in Chester County.

Species

Anguillidae

American Eel (*Anguilla rostrata*)

First Noted By: W. Fairchild; **Also Noted By:** Stroud Water Research Center

Years Observed: 1998; 2019

Status

IUCN: Redlist Global Status: Endangered; Global Population: Decreasing

Catostomidae

White Sucker (*Catostomus commersonii*)

First Noted By: W. Fairchild; **Also Noted By:** D. DiFederico; Stroud Water Research Center

Years Observed: 1997; 1998; 2005; 2018; 2019

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Notes: A migratory species that is common in Plum Run in the summer (Cressler 2015).

Centrarchidae

Pumpkinseed (*Lepomis gibbosus*)

Noted By: W. Fairchild

Year Observed: 1998

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Rock Bass (*Ambloplites rupestris*)

Noted By: D. DiFederico

Year Observed: 2005

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Smallmouth Bass (*Micropterus dolomieu*)

Noted By: W. Fairchild

Year Observed: 1997

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Cyprinidae

Blacknose Dace (*Rhinichthys atratulus*)

First Noted By: W. Fairchild; **Also Noted By:** D. DiFederico; Stroud Water Research Center

Years Observed: 1997; 1998; 2005; 2018

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Notes: One of the most common species in Plum Run (Cressler 2015).

Common Shiner (*Luxilus cornutus*)

Noted By: W. Fairchild

Years Observed: 1997; 1998

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Creek Chub (*Semotilus atromaculatus*)

First Noted By: W. Fairchild; **Also Noted By:** D. DiFederico; Stroud Water Research Center

Years Observed: 1997; 1998; 2005; 2018; 2019

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Notes: One of the most common species in Plum Run (Cressler 2015).

Cutlips Minnow (*Exoglossum maxillingua*)

First Noted By: W. Fairchild; **Also Noted By:** D. DiFederico

Years Observed: 1997; 1998; 2005

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Fallfish (*Semotilus corporalis*)

Noted By: D. DiFederico

Year Observed: 2005

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Minnow (*Cyprinidae Indet.*)

Noted By: W. Fairchild

Years Observed: 1997; 1998

Notes: Butler & Fairchild listed the following four species as being represented under the 'Other Minnow' category: *Notemigonus crysoleucas* (Cyprinidae), *Cyprinella analostana* (Cyprinidae), *Notropis hudsonius* (Cyprinidae), *Notropis procne*. However, there was no way to tell which species were in the upper reach area of Plum Run, so none of these were considered to be present in Plum Run. However, for the time being, I've treated the ones that did reach the upper reach as Cyprinidae Indet.

Rosyside Dace (*Clinostomus funduloides*)

First Noted By: W. Fairchild; **Also Noted By:** D. DiFederico; Stroud Water Research Center

Years Observed: 1997; 1998; 2005; 2018

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Notes: One of the most common species in Plum Run (Cressler 2015).

Percidae

Tesselated Darter (*Etheostoma olmstedii*)

First Noted By: W. Fairchild; **Also Noted By:** Stroud Water Research Center

Years Observed: 1998; 2018

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Stable

Notes: Is said to particularly favor the upper reaches of Plum Run (Cressler 2015).

Protopteridae

African Lungfish (*Protopterus*)

Identified By: N. Ritter (from photo); **Noted By:** G. Hertel & K. McMillin

Year Observed: 2012

Status

IUCN: Redlist Global Status: Least Concern; Global Population: Unknown

Notes: Collected in Plum Run by Gerry Hertel and Kendra McMillin. Presumably, someone's former pet that was discarded in the stream. May be a Spotted African Lungfish (*Protopterus dolloi*).

Literature Used in Compiling the Data

Butler, L. H. and G. W. Fairchild. 2005. Response of fish assemblages to winter in two adjacent warmwater streams. *The American Midland Naturalist* 154(1): 152-165.

DiFederico, D. 2007. Plum Run: A Stream Evaluation Based on Macroinvertebrate Community Structure. MS Thesis. Department of Biology. West Chester University of Pennsylvania, West Chester, PA. 96 pp.

Other References

Cressler, W. 2015. The Flow of History along Plum Run. https://digitalcommons.wcupa.edu/gna_sp_series/49

[IUCN] International Union for the Conservation of Species. 2020. The IUCN Red List of Threatened Species. Version 2020-2. <https://www.iucnredlist.org>. Date Accessed: 6/30/2020.

[PNHP] Pennsylvania Natural Heritage Program. 2015. Chester County Natural Heritage Inventory Update 2015. Western Pennsylvania Conservancy, Pittsburgh, PA. 609 pp.

[PNHP] Pennsylvania Natural Heritage Program. 2020. Pennsylvania Natural Heritage Environmental Review List (<http://www.naturalheritage.state.pa.us/Species.aspx>); Date accessed: 3/27/2020.

Metadata

This document was generated from the GNA Database. Database created and data maintained by Nur Ritter, Stewardship Manager, Gordon Natural Area.

Recommended Citation: Ritter, N. 2020. Annotated checklist of the fish species observed at the Gordon Natural Area (West Chester University, PA) 1997-2019. Version I. 6 pp. Database queried and document created: 8/9/2020.