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Commonwealth of Pennsylvania  
Pennsylvania Fish and Boat Commission

Agenda

The 131<sup>th</sup> Meeting of the Pennsylvania Fish and Boat Commission will be held on Monday and Tuesday, January 14 and 15, 2019 at the Pennsylvania Fish and Boat Commission headquarters, Harrisburg, PA 17110.

Commission committees will meet on January 14, beginning at approximately 8:15 a.m., and on January 15, beginning at approximately 8:15 a.m. The public session for review of this agenda will begin on January 15.

**Call to Order**

**Pledge of Allegiance**

**Roll Call**

**Eric C. Hussar, President**  
**Richard Lewis, Vice President**  
**Rocco S. Ali**  
**Donald K. Anderson**  
**William C. Brock**  
**G. Warren Elliott**  
**Norman R. Gavlick**  
**Richard S. Kauffman**  
**Edward P. Mascharka III**  
**Robert B.J. Small**

**Review and Approval of Minutes from the October 16 and 18, 2018 Meetings**

**Awards and Presentations**

**Executive Director's Report**

**Announcement of Executive Sessions**

**Reports of Commissioner Committees**

- Executive and Administrative
- Boating
- Fisheries and Hatcheries
- Habitat and Environmental
- Law Enforcement
- Legislation and Public Outreach

**Public Comment to Commissioners and Staff**

**EXECUTIVE AND ADMINISTRATIVE  
PUBLIC ACCESS AND REAL ESTATE MATTERS**

A. Property Disposition at Equinunk Access for the State Route 191 Slope Stabilization Project, Buckingham Township, Wayne County.

Commentary:

The Commission owns +/-1.6 acres along the Delaware River in Buckingham Township, Wayne County that contains an undeveloped hillside known as the Equinunk Access (Site). The Site is located about 22 miles northeast of Honesdale and approximately 3/4 mile north of the Village of Equinunk. State Route 191 runs along and forms the westerly boundary of the Site. The Site is seldom used because there is not an established access point from State Route 191.

State Route 191 needs stabilization work in the vicinity of the Site due to significant slumping and subsidence of the road way. The Pennsylvania Department of Transportation (PennDOT) wishes to acquire permanent property rights to allow them to place, operate and maintain stabilization improvements (Project) on the Site to protect and maintain the health, safety and welfare of the traveling public.

PennDOT's Project will require the acquisition of +/-10,882 square feet of permanent slope easement and +/- 4,475 square feet of temporary construction easement to facilitate the implementation and operation of the of the Project, as depicted on Exhibit A. The temporary construction easement will revert to the Commission at the conclusion of construction.

PennDOT will pay fair market value for the rights it is acquiring and will make a good faith effort to allow the Site to remain open to the public and accommodate all Commission operational needs during construction. The Project area will be restored to a condition equal to or better than its current condition at the conclusion of the Project. The Project will not have any long-term impacts on the Site.

The disposition will be subject to staff performing the necessary due diligence and addressing any issues that arise during that process

Briefer:

Brian P. Barner, Deputy Director, Office of Administration

Recommendation:

Staff recommend the Commission authorize the disposition of the subject property rights to the Pennsylvania Department of Transportation as more particularly described in the Commentary.

Action:

B. Pittsenbarger Easement Acquisition, Borough of Springboro, Crawford County.

Commentary:

Section 2907.2 of the Fish and Boat Code, 30 Pa. C.S. §2907.2, provides that the proceeds from the sale of the special Lake Erie fishing permits and \$6 of the fees for the combination trout/salmon/Lake Erie permits are to be deposited into a restricted account within the Fish Fund and that this restricted account “shall be used to provide public fishing access or to protect or improve fish habitat on or at Lake Erie, Presque Isle Bay and their tributaries, including waters that flow into those tributaries.” The funds generated through this program are deposited into the Lake Erie restricted account where they are restricted now and into the future for their legislatively intended purposes. *Pennsylvania’s Fishing and Boating Access Strategy* ranks this watershed as the top priority for access improvement statewide.

The Commission has been offered an easement on 2,170 linear feet along Conneaut Creek as it flows across two parcels of property in Springboro Borough, Crawford County for \$29,300. The easement will be for public fishing, boating, and riparian and fishery management and will include the stream corridor and extend at least 35 feet back from the top of the bank to the extent of the ownership of the seller. The easement area is located along Conneaut Creek, north of Beaver Street in Springboro, PA. A map depicting the subject parcels is attached as Exhibit A.

The seller and the Commission have signed option agreements that will allow staff to perform its due diligence. The Commission’s exercise of the option agreements will be subject to meeting the due diligence and funding requirements. In addition, the seller has agreed to be responsible for all current applicable real estate and transfer taxes that are normally shared between the buyer and the seller. The Commission may, at its sole discretion, pay for the costs to obtain and record subordination of liens for the property.

Conneaut Creek provides significant steelhead opportunities in the area. *Pennsylvania’s Fishing and Boating Access Strategy* indicates a need for more access on this section of Conneaut Creek. The Commission’s regional Law Enforcement and Fisheries staff have recommended that the site be acquired.

Briefer:

Brian P. Barner, Deputy Director, Office of Administration

Recommendation:

Staff recommend that the Commission authorize the acquisition of an easement along Conneaut Creek in the Borough of Springboro, Crawford County, as more particularly described in the Commentary, utilizing monies in the Lake Erie restricted account.

Action:

C. North West Crawford County Sewer Authority Easement Acquisition, Borough of Springboro, Crawford County.

Commentary:

Section 2907.2 of the Fish and Boat Code, 30 Pa. C.S. §2907.2, provides that the proceeds from the sale of the special Lake Erie fishing permits and \$6 of the fees for the combination trout/salmon/Lake Erie permits are to be deposited into a restricted account within the Fish Fund and that this restricted account “shall be used to provide public fishing access or to protect or improve fish habitat on or at Lake Erie, Presque Isle Bay and their tributaries, including waters that flow into those tributaries.” The funds generated through this program are deposited into the Lake Erie restricted account where they are restricted now and into the future for their legislatively intended purposes. *Pennsylvania’s Fishing and Boating Access Strategy* ranks this watershed as the top priority for access improvement statewide.

The Commission has been offered an easement on 790 linear feet along Conneaut Creek as it flows across a parcel of property in the Borough of Springboro, Crawford County for \$10,600. The easement will be for public fishing, boating, and riparian and fishery management and will include the stream corridor and extend at least 35 feet back from the top of the bank to the extent of the ownership of the seller. The easement area is located along Conneaut Creek, north of Beaver Street in Springboro, PA. A map depicting the subject parcels is attached as Exhibit B.

The seller and the Commission have signed an option agreement that will allow staff to perform its due diligence. The Commission’s exercise of the option agreement will be subject to meeting the due diligence and funding requirements. In addition, the seller has agreed to be responsible for all current applicable real estate and transfer taxes that are normally shared between the buyer and the seller. The Commission may, at its sole discretion, pay for the costs to obtain and record a subordination of lien for the property.

Conneaut Creek provides significant steelhead opportunities in the area. *Pennsylvania’s Fishing and Boating Access Strategy* indicates a need for more access on this section of Conneaut Creek. The Commission’s regional Law Enforcement and Fisheries staff have recommended that the site be acquired.

Briefer:

Brian P. Barner, Deputy Director, Office of Administration

Recommendation:

Staff recommend that the Commission authorize the acquisition of an easement along Conneaut Creek in the Borough of Springboro, Crawford County, as more particularly described in the Commentary, utilizing monies in the Lake Erie restricted account.

Action:

## **BOATING PROPOSED RULEMAKING**

### A. Amendment to Section 111.2 Allegheny County.

#### Commentary:

The area known as the Point in Pittsburgh is where the Monongahela and Allegheny rivers come together to form the Ohio River. This busy boating destination is regulated by Title 58 PA Code, specifically Section 111.2 Allegheny County. During the busy boating season, a No Wake Zone is enforced from the Fort Pitt Bridge over the Monongahela River and the 9<sup>th</sup> Street Bridge over the Allegheny River to the West End Bridge on the Ohio River. This zone is in effect on weekends from May 1 to October 1 each year as well as on the three summer holidays.

Recently several stakeholders including both the city of Pittsburgh, Allegheny County, Pittsburgh Safe Boating Council, 3 Rivers Rowing Association, and Downtown CDC have requested that the Commission consider extending the zone on the Allegheny River to the Veterans Bridge and keeping it in effect through November 1 of each year (Exhibit C). This change is needed due to increased boating traffic in the fall for various events in the area. Additionally, the zone would create safer conditions for mooring vessels along the Riverwalk. This amendment was approved by the Boating Advisory Board at their recent meeting on January 8, 2019.

Staff propose that §111.2 be amended as follows:

(c) *Allegheny, Monongahela and Ohio Rivers (City of Pittsburgh)*. Boats are limited to slow, no-wake speed from the Fort Pitt Bridge over the Monongahela River and the **[9<sup>th</sup> Street Bridge] Veterans Bridge** over the Allegheny River to the West End Bridge over the Ohio River. This zone shall be in effect on weekends from May 1 to **[October] November** 1 from 3 p.m. Friday until midnight Sunday and from 3 p.m. on the day preceding Memorial Day, July 4 and Labor Day until midnight of the holiday.

#### Briefer:

Colonel Corey Britcher, Director, Bureau of Law Enforcement

#### Recommendation:

Staff recommend that the Commission approve the publication of a notice of proposed rulemaking containing the amendments described in the Commentary. If adopted on final rulemaking, these amendments will go into effect upon publication in the *Pennsylvania Bulletin*.

#### Action:

## **FISHERIES AND HATCHERIES DESIGNATIONS**

### A. Proposed Additions to List of Class A Wild Trout Streams.

#### Commentary:

Pursuant to 58 Pa. Code § 57.8a (relating to Class A wild trout streams), it is the Commission's policy to manage self-sustaining Class A wild trout populations as a renewable natural resource to conserve that resource and the angling it provides. Class A wild trout populations represent the best of Pennsylvania's naturally reproducing trout populations. Criteria developed for Class A Wild Trout populations are species specific. Wild Trout Biomass Class Criteria include provisions for wild Brook Trout, wild Brown Trout, mixed wild Brook and Brown Trout, wild Rainbow Trout, mixed wild Brook and Rainbow Trout and mixed wild Brown and Rainbow Trout populations.

Staff recommend the addition of 26 stream sections to the Commission's list of Class A wild trout streams. These changes are the result of recent surveys conducted on these waters. Exhibit D provides information on the locations and a data summary for each of these waters.

A notice of proposed designations was published at 48 Pa. B. 7185 (November 10, 2018) (Exhibit E). The Commission received a total of 172 public comments regarding the proposed designations – 170 support the proposed designations and two comments did not pertain to the proposed designations. Copies of all public comments have been provided to the Commissioners.

#### Briefer:

Andrew L. Shiels, Deputy Director, Office of Field Operations

#### Recommendation:

Staff recommend that the Commission add 26 sections to its Class A wild trout streams list as described in the Commentary. If approved, these additions will go into effect upon publication of a second notice in the *Pennsylvania Bulletin*.

#### Action:

## B. Classification of Wild Trout Streams: Proposed Additions and Revisions.

### Commentary:

The Department of Environmental Protection's regulations at 25 Pa. Code § 105.1 define the term "wild trout stream" as "a stream identified as supporting naturally reproducing trout populations by the Fish and Boat Commission under 58 Pa. Code § 57.11 (relating to listing of wild trout streams)." This term has regulatory significance because wetlands that are located in or along the floodplain of the reach of a wild trout stream and the floodplain of streams tributary thereto are considered "exceptional value" and are thus entitled to the highest level of protection.

The Commission adopted a statement of policy at 58 Pa. Code § 57.11 that sets forth the basis for the classification of streams supporting the natural reproduction of trout. Under § 57.11, it is the policy of the Commission to accurately identify and classify stream sections supporting naturally reproducing populations of trout as wild trout streams. The listing of a stream section as a wild trout stream is a biological designation that does not determine how the stream is managed. The statement of policy provides that the Commission's Fisheries Management Division will maintain the list of wild trout streams and that the Executive Director, with approval of the Commission, will from time to time publish the list of wild trout streams in the *Pennsylvania Bulletin* and solicit public comments.

Staff recommend the addition of 69 new waters to the Commission's list of wild trout streams and revision to the section limits of seven waters. These changes are the result of recent surveys conducted on these waters. Exhibit F provides information on the locations and a data summary for each of these waters. Surveying unassessed waters and documenting wild trout populations are consistent with the Commission's Strategic Plan for Management of Trout Fisheries in Pennsylvania, the statewide Strategic Plan and the agency's Resource First philosophy.

A notice of proposed designations was published at 48 Pa. B. 7181 (November 10, 2018) (Exhibit G). The Commission received a total of 173 public comments regarding the proposed designations – 171 support the proposed designations and two comments did not pertain to the proposed designations. Copies of all public comments have been provided to the Commissioners.

### Briefer:

Andrew L. Shiels, Director, Deputy Director, Office of Field Operations

### Recommendation:

Staff recommend that the Commission add 69 new waters to the Commission's list of wild trout streams and revise the section limits of seven waters as set forth in the notice of proposed designations. If approved, these additions and revisions will go into effect upon publication of a second notice in the *Pennsylvania Bulletin*.

### Action:

## HABITAT AND ENVIRONMENTAL OTHER MATTERS

### A. Sinnemahoning Creek Watershed Restoration Grant to Cameron County Conservation District.

#### Commentary:

At the October 2008 meeting, the Commission established the Sinnemahoning Creek Watershed Restoration Grant Program. This program was funded by a settlement agreement between the Commonwealth of Pennsylvania and Norfolk Southern, pursuant to which Norfolk Southern paid the Commission \$3,675,000 as restitution for natural resource damages stemming from a June 30, 2006 sodium hydroxide spill into Big Fill Run, Sinnemahoning-Portage Creek, Driftwood Branch of Sinnemahoning Creek and Sinnemahoning Creek. Under the agreement, the Commission must use these monies for developing and implementing projects that benefit recreational fishing and boating and the aquatic resources of Cameron, McKean, Elk and Potter Counties. Projects to be considered will include, but will not be limited to, acid mine drainage abatement; habitat protection, enhancement and restoration; the acquisition of properties (in fee or easements) for public fishing and access, as well as improvements to existing access areas; and aquatic inventories. The Commission authorized the Executive Director to approve individual grants in the amount of \$100,000 or less per grantee per year for projects meeting the objectives of the grant program. For grants exceeding that amount, staff will seek separate Commission approval.

Staff recommend that the Commission approve a grant in the amount of \$200,000 to the Cameron County Conservation District. The applicant has obtained additional match funding totaling \$433,460, which includes \$238,808 from the county's Dirt and Gravel Road Program, \$4,831 in other funds from the Conservation District, \$10,250 from partner state and federal agencies, and a \$179,571 grant from the Central Appalachia Habitat Stewardship Program administered by the National Fish and Wildlife Foundation.

The applicant proposes to conduct a project entitled "*Restoration of the Upper Jerry Run Watershed to Benefit Native Eastern Brook Trout.*" Upper Jerry Run is a tributary to the main stem of Sinnemahoning Creek. The objectives of the project are as follows: 1) Eliminate significant erosion & sedimentation from adversely impacting the stream along six miles of dirt & gravel roadway through paving with Driving Surface Aggregate (DSA); 2) Elevate pH of the stream using DSA road paving consisting of sand-sized, compacted limestone; 3) Reconnect 1.25 miles of stream habitat by replacing a perched culvert to restore fish passage for naturally reproducing brook and brown trout; 4) Stabilize eroding streambanks at three locations; 5) Improve in-stream habitat through the addition of large woody debris; 6) Work with the PA Department of Environmental Protection to upgrade the watershed to Exceptional Value for added protection; 7) Promote as a demonstration project by providing signage, publicity, and training outreach. The Conservation District will complete a permit application for replacement of the culvert and the streambank stabilization structures.

Briefer:

Andrew L. Shiels, Deputy Director, Office of Field Operations

Recommendation:

Staff recommend that the Commission approve a grant in the amount of \$200,000 to the Cameron County Conservation District for the purposes described in the Commentary.

Action:

## **HABITAT AND ENVIRONMENTAL FINAL RULEMAKING**

B. Amendments to Section 75.1 (Endangered Species) to Add the Pugnose Minnow and Blacknose Shiner, remove the Banded Sunfish and Gravel Chub, and Amendment to Section 75.3 (Candidate Species) to Remove the Central Mudminnow and Eastern Mudminnow

Commentary:

(1) Pugnose Minnow (*Opsopoeodus emiliae*) is a small (40-55mm), silver and olive colored, slender, and compressed minnow with a nearly vertical mouth it uses to feed on microcrustaceans at the water's surface. It inhabits sluggish streams, lakes, wetlands, and oxbows, usually where dense vegetation or coarse woody debris is present. It occurs in waters that are clear or turbid. In Pennsylvania, it occurs in a low gradient, turbid stream sections with limited submerged and emergent vegetation, but with considerable downed, in-stream woody debris.

The Pugnose Minnow occurs from the Atlantic Slope in South Carolina across the Gulf Slope to Texas, and northward in the Mississippi River and Great Lakes systems to southern Wisconsin and Ontario (Page and Burr 2011).

The Pugnose Minnow was first collected in Pennsylvania in 2000 (Argent and Spear 2001), and was subsequently collected in 2001 (Criswell and Fischer). In 2016, R. Criswell, D. Fischer and J. Brancato (PADEP) collected 10 individuals of this species, confirming an established population. All collections are from a short section of lower Cussewago Creek, Crawford County, totaling no more than 2 km in length. Although there are no older records for this species, experts consider it native here. Cussewago Creek, which is a tributary to French Creek, is difficult to sample, and the microhabitat occupied by the Pugnose Minnow is very limited. It could have very easily been overlooked, and historic sampling effort there, particularly for non-game fishes, has been very limited. In addition, this species occurred historically in northeast Ohio (Trautman 1981) and is represented elsewhere in its range by several disjunct populations (Page and Burr 2011). This species appears to be subject to population fluctuations in Pennsylvania. Five surveys were focused on this species in the occupied section of Cussewago Creek between 2006 and 2016 without success.

The level of turbidity that this population of Pugnose Minnows will tolerate is unknown, but any significant increases could be problematic. The state-endangered Hornyhead Chub, *Nocomis biguttatus*, formerly occurred in this waterway, but is now extirpated. We suspect that increased turbidity during the post-1930 period is responsible for this extirpation. Increases in silt loading must be considered the greatest threat to the Pugnose Minnow.

A dam currently impounds a portion of Cussewago Creek 1.5 km below the area occupied by the Pugnose Minnow. There have been discussions concerning the removal of this dam (B. Lorson, PFBC, pers. comm.). It is unclear if the removal of this dam would impact the water level or habitat in the vicinity of the Pugnose Minnow population. It is also unclear if the Pugnose Minnow occupies the impounded area.

The current status of this species was reviewed using the Commission's documentation and objective listing/delisting process. Endangered species criteria were met in four categories: A1 (Population Reduction), B3 (Extent of Occupancy in streams is less than 10 miles), B4 (Sum of Proportion of Watersheds Occupied value < 0.2), and B5 (Severely fragmented < 6 locations). In addition, it was evaluated with NatureServe's Conservation Status Assessments Rank Calculator and received a State Conservation Rank of S1 – meaning it is critically imperiled in the Commonwealth with a high to very high risk of extirpation due to its limited range and/or few populations or occurrences. The Fishes Technical Committee of the Pennsylvania Biological Survey (PABS) reviewed this documentation and rank assignment and recommended that the Pugnose Minnow be listed as endangered. Enough information is available to make the determination that it is endangered in the Commonwealth at present and to justify its addition to Pennsylvania's list of endangered fishes. Therefore, the Commission proposes that the Pugnose Minnow be added to the list of endangered species under § 75.1.

(2) Blacknose Shiner (*Notropis heterolepis*) is a small olive to pale yellow minnow (40-65mm) found in clear lakes and streams, where it is often associated with aquatic vegetation. In Pennsylvania, this species has been collected in pools, with rubble, gravel, and sand substrates, and completely lacks submerged vegetation.

The Blacknose Shiner is distributed from the Hudson Bay drainage east to Nova Scotia in Canada, and from Maine west to Nebraska, with extinct glacial relict populations in southern Kansas and Missouri (Gilbert 1980, Page and Burr 2011). This species is common in the north of its range, but disappearing from the southern region (Page and Burr 2011).

In the glaciated northwestern portion of Pennsylvania, there are historic records from the Lake Erie drainage, Shenango River drainage, and the upper Allegheny River drainage. The only recent records are from two tributaries to the Allegheny River in Erie and McKean counties.

The Blacknose Shiner was thought to be extirpated from Pennsylvania until recently, with no collection reports from the late 1930s through 2009. It was formerly known from Erie and Crawford counties. Following collections in 2009, the status was updated to "undetermined" and the historically occupied waterways were intensively surveyed. Populations were found in a single, small drainage in Erie County within its historically known distribution. Another population is found in a tributary to the upper Allegheny River outside of the known native range in Pennsylvania and is considered to be introduced, but it could possibly be native. The known lineal occupied distance within the native range is only 2 km and justifies a change in status from undetermined to endangered.

The current status of this species was reviewed using the Commission's documentation and objective listing/delisting process. Endangered species criteria were met in four categories: A1 (Population Reduction), B3 (Extent of Occupancy in streams <10 miles), B4 (Sum of Proportion of Watersheds Occupied < 0.2), and B5 (Severely fragmented < 6 locations). In addition, it was evaluated with NatureServe's Conservation Status

Assessments Rank Calculator and received a State Conservation Rank of S1 – meaning it is critically imperiled in the Commonwealth with a high to very high risk of extirpation due to its limited range and/or few populations or occurrences. The Fishes Technical Committee of the Pennsylvania Biological Survey (PABS) reviewed this documentation and rank assignment and recommended that the Blacknose Shiner be listed as endangered. Enough information is available to make the determination that it is endangered in the Commonwealth at present and to justify its addition to Pennsylvania's list of endangered fishes. Therefore, the Commission proposes that the Blacknose Shiner be added to the list of endangered species under § 75.1.

(3) Banded Sunfish (*Enneacanthus obesus*) are small sunfish (50-90mm) with an olive colored body having 5-8 dark vertical bars extending to its ventral side. It occupies sluggish, calm sections of streams and rivers, as well as bogs, marshes, swamps, ponds, and lakes. It is closely associated with dense stands of rooted and suspended aquatic vegetation over substrates of silt, sand, mud, and detritus.

It is native to the coastal lowlands from southern New Hampshire to central Florida in both the Atlantic and Gulf drainages (Lee 1980). In Pennsylvania, it occurred historically in the tidal portion of Delaware River drainage in Bucks, Delaware, and Philadelphia counties (Fowler 1940, Cooper 1983).

Two circa 1850 collections include 4 specimens (UMMZ 86801) and 8 specimens (ANSP 12876). Three records from 1907-1914 each contain 1 or 2 specimens (ANSP 41855, 41859, and 41874). It is obvious, given these numbers and the very limited extent of suitable Coastal Plain habitat on the Pennsylvania side of the Delaware River/Estuary, that the Banded Sunfish was never particularly common or widely distributed in the Commonwealth. The 1977 collection included 3 specimens and likely represented waifs and not a population given the paucity of records before and after.

The Banded Sunfish is currently listed as an endangered species. It has not been collected or verified in Pennsylvania since 1977, when 3 specimens were taken from an impingement screen at a power plant on the Delaware River near Philadelphia in Delaware County (Cooper 1983). All earlier records are from the Coastal Plain in Bucks and Philadelphia counties, and predate 1915 (Stauffer et al. 2016). Despite targeted sampling by multiple researchers (R. Criswell, Academy of Natural Sciences in Philadelphia, and Philadelphia Water Department), no specimens have been collected and most suitable historic habitat has been altered or destroyed (Criswell 1998, Horwitz et al. 2006, unpublished data). Based on this information, it can be surmised that this species no longer occurs in the Commonwealth, and should be removed from the Pennsylvania endangered species list.

The current status of this species was reviewed using the Commission's documentation and objective listing/delisting process. Because there are currently no extant records of the Banded Sunfish, no threatened and endangered species listing criterion were met. The Fishes Technical Committee of the PABS reviewed this documentation and rank

assignment and recommended that the Banded Sunfish be delisted. Enough information is available to make the determination that it no longer occurs within the Commonwealth at present and to justify its removal from Pennsylvania's list of endangered fishes. Therefore, the Commission proposes that the Banded Sunfish be removed from the Pennsylvania list of endangered species under § 75.1.

(4) Gravel Chub (*Erimystax x-punctatus*) is a slender, medium-sized (65-95mm) yellow to olive green chub that inhabits large creeks and rivers with clear to somewhat turbid water, over substrate that includes significant amounts of clean sand, gravel, and rock. It is essentially a benthic fish that occurs in riffles and runs, in both shallow and deeper water.

The Gravel Chub is native from southern Ontario and western New York west to Minnesota and south to Arkansas. It was known to inhabit the Ohio River basin of western Pennsylvania (and New York) with most of the verified occurrences associated with the Allegheny River.

The historic distribution of the Gravel Chub is somewhat obscured by its taxonomic past. The Gravel Chub was recognized as distinct relatively recently and wasn't formally described as a species until 1956 (Hubbs and Crowe), well after the collection record had begun. It is likely that early reports of the generically similar Streamline Chub, *Erimystax dissimilis* included the Gravel Chub. Cope (1881) reported the Streamline Chub to be "especially numerous in the creeks of Western Pennsylvania".

We are aware of 13 collections of the Gravel Chub from Pennsylvania. Collections made before the species description (Hubbs and Crowe 1956) were re-identified from museum specimens. The earliest was made by Edward D. Cope in the late 1800s from the Youghiogheny River (later identified by Robert E. Jenkins, ANSP1824). This collection indicates that the Gravel Chub was likely much more widely distributed initially in the upper Ohio River basin than indicated by later collections. The subsequent 12 collections were all made during the period 1935-1985 from the Allegheny River or from the lower reaches of tributaries to the Allegheny River. Similarly, Carlson et al. (2016) reported on collections known from the Allegheny River in New York during this same period with no occurrences reported after 1979.

There are no recent verified reports of Gravel Chubs from the Allegheny River drainage. From approximately 2000 to present, the rivers of the Ohio River drainage in western Pennsylvania have been intensively surveyed with electrofishing and trawling gears at hundreds of sites (Koryak et al. 2009, Freedman et al. 2009, Lorson 2009, Koryak et al. 2011, Stauffer et al. 2016, PFBC unpublished data). Efforts by R. Criswell and D. Fischer have also specifically targeted the Gravel Chub at historic collection localities and areas containing seemingly optimum habitat. Despite the collective ability of these efforts to detect changes in the status of species requiring similar environmental conditions (e.g. Streamline Chub, Mountain Madtom, Northern Madtom, Channel Darter, Longhead Darter, River Darter, Gilt Darter, Bluebreast Darter, Tippecanoe Darter, Spotted Darter), no verified specimens of Gravel Chubs have been collected. The lack of collections of the

Gravel Chub in western Pennsylvania and New York indicate that it is now likely extirpated from the “Three Rivers” drainage area.

This species is of moderate concern globally. Although locally common in some areas, populations are declining over much of its range (Page and Burr 2011). The Ontario and Kentucky populations have been extirpated. Trautman (1981) suggested that increased siltation was responsible for a contraction of its range in Ohio. Impoundments are likely a contributing factor in reducing suitable habitat by altering flow and promoting the deposition of silt. Carlson et al. (2016) reported that one historic locality in New York is now inundated by the Allegheny Reservoir. On the Monongahela River and lower Allegheny River, a series of navigational locks and dams and urban development have extensively altered natural habitats. The dredging industry has utilized the impounded sections of the upper Ohio River and Allegheny River to mine glacial sand and gravel, further altering the river bottoms.

The disappearance of the Gravel Chub from Pennsylvania and New York remains somewhat of a mystery. The Gravel Chub was apparently able to survive in the Allegheny River drainage throughout most of the 1900s as indicated by collections during 1935-1985. Environmental quality generally improved in the Allegheny River drainage in the 1970s and 1980s largely due to the implementation of the Clean Water Act (Koryak et al. 2009). During this period, many lithophilic fishes reinvaded portions of the Allegheny River drainage where pollution had been problematic and, in some areas, these fishes have become abundant (Ortmann 1909, Stauffer et al. 2016; PFBC unpublished data). Apparently, the Gravel Chub did not benefit similarly.

Trautman (1981) observed that competition between the Gravel Chub and its congener, the Streamline Chub, appeared to be rather keen, especially while feeding. The Streamline Chub is presently well distributed and common to abundant in the Allegheny River and its larger tributaries (Stauffer et al. 2016, PFBC unpublished data). It is also present in the upper Ohio River. In the state of Ohio, where Gravel Chubs and Streamline Chubs are still found together, these species appear to segregate into different habitats. Brian Zimmerman (Ohio State University Museum of Biodiversity) provided the following personal communication discussing his observations in Ohio.

“In Ohio the Streamline Chub *Erimystax dissimilis* and Gravel Chub *E. x-punctatus* both have greatly increased in abundance and distribution over the past 20-30 years. They do seem to differ in habitat in that the Streamline Chub is found in smaller and clearer streams than the Gravel Chub. In our two large river systems that have large populations of both (Muskingum and Scioto rivers) the Gravel Chub stays almost entirely in the main stem and the largest of tributaries where the turbidity of the water is often greater. Streamline Chubs in these two systems are found significantly further upstream and in smaller tributaries to these systems. The water clarity may just be a factor of stream size. These two also differ in habitat preference in that Streamline Chub are more often in deeper water in more "run-like" habitat and Gravel Chub are often found shallower on large gravel riffles of the large rivers they inhabit in Ohio. Clarity and or depth may be

playing a role in why Streamline Chub have expanded into the upper Ohio River and a few tributaries on the eastern edge of Ohio. This presumably is a downstream extension of the very large population in PA in the Allegheny and upper Ohio Rivers. Gravel Chub on the other hand have not been found in this area.”

Experts speculate that historic habitat modification in the upper Ohio River basin and possibly interspecific competition have contributed to the extirpation of the Gravel Chub from the Allegheny River drainage. It appears that turbidity presently plays a role in the distribution of Gravel Chub populations as they recolonize waters in Ohio. As polluted waters in western Pennsylvania have recovered throughout the late 1900s, they have become clearer. It is possible that this has played an additional role in further reducing optimal conditions for the Gravel Chub or by providing a competitive edge for the Streamline Chub.

The Gravel Chub is currently listed as endangered in Pennsylvania. The Gravel Chub persisted in Pennsylvania and New York in the Allegheny River basin throughout the worst period of pollution during the early and mid-1900s. Despite this, it hasn't been observed in Pennsylvania since 1985. Many intensive fisheries survey efforts have been conducted recently throughout its range here, including specific efforts targeted at the Gravel Chub. Based on this information, it appears that this species no longer occurs in the Commonwealth, and should be delisted from the endangered species list.

The current status of this species was reviewed using the Commission's documentation and objective listing/delisting process. Because there are currently no extant records of the Gravel Chub in the Commonwealth, no threatened and endangered species listing criterion were met. The Fishes Technical Committee of the PABS reviewed this documentation and rank assignment and recommended that the Gravel Chub be delisted. Enough information is available to make the determination that it no longer occurs within the Commonwealth at present and to justify its removal from Pennsylvania's list of endangered fishes. Therefore, the Commission proposes that the Gravel Chub be removed from the Pennsylvania list of endangered species under § 75.1.

(5) Central Mudminnow (*Umbra limi*) is a relatively small (54mm), elongated fish that occurs in marshes, swamps, springs, ditches, lake margins, and the pools of smaller streams. It is usually found in the presence of dense vegetation and soft substrates, but they have been collected in shaded, stagnant, swampy areas that lack vegetation. Suitable substrates include thick organic material, gravel, sand, and silt (Stauffer et al. 2016). Becker (1983) noted a preference for clear water that may be stained light or dark brown, and it is found less frequently in turbid conditions.

Central Mudminnows are known from the St. Lawrence River drainage west through the Great Lakes to southern Manitoba, and south through the Mississippi River Basin to western Tennessee (Gilbert 1980). In Pennsylvania, they occur in the Shenango and upper Allegheny river systems, and Lake Erie drainages (Stauffer et al. 2016).

Historically, the Central Mudminnow was found to be rather widely distributed in northwestern Pennsylvania during the period 1990-present, and is known to occur in Crawford, Mercer, Erie, Venango, and Warren counties at present (Stauffer et al. 2016). A lack of recent records from Beaver and Lawrence counties is most likely an artifact of inadequate targeted surveys there. A number of post-1990 collections include 10 or more individuals, and 150 individuals were counted at one Erie County site in 2009. The Central Mudminnow is common to abundant in the Conneaut Marsh and wetlands in the Pymatuning region; these rather extensive wetlands are the largest in the state.

There are no recent records from the extreme southernmost portion of its range in Pennsylvania. However, given its preference for vegetated wetlands and other waterways that are difficult to survey or are not typically sampled by fishery managers and ichthyologists, it is likely that a significant number of populations exist that have not yet been detected. Although wetlands acreage has declined significantly in the state, and the Central Mudminnow was probably more abundant prior to those losses, it is still rather widespread and locally common.

The Central Mudminnow was listed as a Pennsylvania candidate species in 1991. It occurs in the Shenango and upper Allegheny river systems, and Lake Erie drainages. Since its listing, a significant amount of field work has been performed in this species' native drainage, and many additional populations have been documented in five counties. At some sites the Central Mudminnow was found to be common or abundant. Experts believe that many undetected populations remain, due to this species' specialized habitat and occupation of wetlands that are not typically surveyed by fishery managers or ichthyologists. Based on this information, we believe that removal of this species from the list of candidate species is appropriate.

The current status of this species was reviewed using the Commission's documentation and objective listing/delisting process. It exceeds criterion Criterion B.3 (Extent of Occupancy), because it occupies more than 150 river miles of waterway. Additionally, Criterion B.5 for candidate status is exceeded: no extreme fragmentation and no fluctuation or decline of populations has been documented or suspected and more than 20 occurrences have been documented or suspected. In addition, it was evaluated with NatureServe's Conservation Status Assessments Rank Calculator and received a State Conservation Rank of S4 – meaning it is secure in the Commonwealth with a very low risk of extirpation due to its extensive range and/or many populations or occurrences. The Fishes Technical Committee of the PABS reviewed this documentation and rank assignment and recommended that the Central Mudminnow be delisted. Enough information is available to make the determination that it is secure in the Commonwealth at present and to justify its removal from Pennsylvania's list of candidate fishes. Therefore, the Commission proposes that the Central Mudminnow be removed from the Pennsylvania list of candidate species under § 75.3.

(6) Eastern Mudminnow (*Umbra pygmaea*) is a larger mudminnow (107mm) that inhabits backwaters, braided creek mouths, wetlands, vegetated and soft-bottom lake margins, and sluggish or still sections of streams. It occurs in clear to somewhat turbid

water, usually where dense aquatic vegetation or decaying organic material provides adequate cover. Mudminnows can withstand low dissolved oxygen concentrations (utilizing the gas bladder as a lung), low pH, and temperature extremes, making them tolerant of harsh conditions (Jenkins and Burkhead 1994, Kuhne and Olden 2014). They have been collected in slightly tannin-stained Pocono Mountains lakes, and Hastings (1984) reported it from pH as low as 4.0.

The Eastern Mudminnow occurs from south-eastern New York south to the St. Johns River, Florida, and west along the Gulf Slope to the Aucilla River (Gilbert 1980). In Pennsylvania, it is native to the Delaware River drainage (Stauffer et al. 2016). It has recently been reported from the Susquehanna River basin at multiple sites, where we consider it to be introduced (D. Fischer, unpublished data).

We are aware of 23 pre-1920 records for this species, all from the Philadelphia region (Bucks and Philadelphia counties); between 1920 and 1990 approximately 20 collections were made, which included documentation in Carbon, Chester, Delaware, Monroe, and Pike counties (Stauffer et al. 2016; Criswell and Fischer). Most pre-1990 records document 1-9 individuals per station, but one pre-1920 collection from Bucks County (ANSP 23850) consisted of 23 individuals. There is little doubt, however, that the Eastern Mudminnow was more common than these records reflect, given its preference for debris-laden habitats and the fact that early surveyors were limited to nets and seines. Abundance data for the period 1920-1990 is lacking.

Within the last 25 years, the Eastern Mudminnow was found to be somewhat common in the Bucks, Chester, Delaware, and Philadelphia counties area and some of the Pocono Mountains region during the period 1990-present (Stauffer et al. 2016). Occurrences have been documented by the Academy of Natural Sciences in Philadelphia in Bucks, Philadelphia, Delaware, Lackawanna, Monroe, Philadelphia, Pike and Wayne counties (R. Horwitz, personal communication). Since 1990, extralimital collections have occurred in Bradford, Dauphin, Lackawanna, and Luzerne counties within the Susquehanna River drainage (Stauffer et al. 2016; D. Fischer and M. Bilger, unpublished data). It is unclear if the collections from the Susquehanna River drainage are indicative of bait releases or established populations. A significant amount of suitable habitat in northeastern Pennsylvania remains unsurveyed due to access issues.

The Eastern Mudminnow was listed as a Pennsylvania candidate species in 1991. It occurs in the Delaware River drainage. Since its listing, a significant amount of field work has been performed in this species' native drainage. A number of additional populations have been documented and this species continues to exist at sites where it was documented prior to 1991. Experts believe that many undetected populations remain, due to this species' specialized habitat and occupation of wetlands that are not typically surveyed by fishery managers or ichthyologists; and given the vast amount of private land containing natural ponds and wetlands in northeastern Pennsylvania where access by surveyors is not available. Based on this information the removal of this species from the list of candidate species is warranted.

The current status of this species was reviewed using the Commission's documentation and objective listing/delisting process. It exceeds criterion Criterion B.3 (Extent of Occupancy), because it occupies more than 150 river miles of waterway. Additionally, Criterion B.5 for candidate status is exceeded: no extreme fragmentation and no fluctuation or decline of populations has been documented or suspected and more than 20 occurrences have been documented or suspected. In addition, it was evaluated with NatureServe's Conservation Status Assessments Rank Calculator and received a State Conservation Rank of S4 – meaning it is secure in the Commonwealth with a very low risk of extirpation due to its extensive range and/or many populations or occurrences. The Fishes Technical Committee of the PABS reviewed this documentation and rank assignment and recommended that the Eastern Mudminnow be delisted. Enough information is available to make the determination that it is secure in the Commonwealth at present and to justify its removal from Pennsylvania's list of candidate fishes. Therefore, the Commission proposes that the Eastern Mudminnow be removed from the Pennsylvania list of candidate species under § 75.3.

These surveys and resultant listing evaluations were made possible with funding from the State Wildlife Grants program.

A notice of proposed rulemaking was published at Pa. B. 7532 (December 8, 2018) (Exhibit H). The Commission did not receive any public comment regarding the proposal.

Briefer:

Andrew L. Shiels, Deputy Director, Office of Field Operations

Recommendation:

Staff recommend that the Commission adopt the amendments as set forth in the notice of the proposed rulemaking. If adopted on final rulemaking, these amendments will go into effect upon publication in the *Pennsylvania Bulletin*.

Action:

**Other New Business**

**Time and Place of April 2019 Commission Meeting**

**Adjournment**