# Esox americanus americanus (Redfin Pickerel)

Report Date: January 13, 2016

**Priority 2 Species of Greatest Conservation Need (SGCN)** 

Class: Actinopterygii (Ray-finned Fishes)
Order: Esociformes (Pikes And Mudminnows)

Family: Esocidae (Pikes)

General comments: none

## **Species Conservation Range Maps for Redfin Pickerel:**

Town Map: <u>Esox americanus americanus Towns.pdf</u>
Subwatershed Map: <u>Esox americanus americanus HUC12.pdf</u>

## **SGCN Priority Ranking - Designation Criteria:**

**Risk of Extirpation:** 

Maine Status: Endangered

State Special Concern or NMFS Species of Concern: NA

**Recent Significant Declines: NA** 

**Regional Endemic: NA** 

High Regional Conservation Priority: NA High Climate Change Vulnerability: NA

**Understudied rare taxa: NA** 

**Historical: NA** 

**Culturally Significant: NA** 

# **Habitats Assigned to Redfin Pickerel:**

#### Formation Name Freshwater Aquatic

Macrogroup Name Lakes and Ponds

Habitat System Name: Eutrophic \*\*Primary Habitat\*\*

Macrogroup Name Rivers and Streams

Habitat System Name: Headwaters and Creeks \*\*Primary Habitat\*\* Notes: Coastal Stream/River

Habitat System Name: Small River \*\*Primary Habitat\*\* Notes: Coastal Stream/River

Formation Name Intertidal

Macrogroup Name Intertidal Water Column

Habitat System Name: Confined Channel Notes: migration corridor

# **Stressors Assigned to Redfin Pickerel:**

Stressor Priority Level based on Severity and Actionability

	Moderate Severity	High Severity
Highly Actionable	Medium-High	High
Moderately Actionable	Medium	Medium-High
Actionable with Difficulty	Low	Low

IUCN Level 1 Threat Pollution

IUCN Level 2 Threat: Agricultural and Forestry Effluents

Severity: Severe Actionability: Moderately actionable

Notes: Nutrient loading from agricultural runoff severely degrades water quality, vegetation type, and dissolved oxygen

level. One RPK population is known to be affected.

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IUCN Level 1 Threat Transportation and Service Corridors

IUCN Level 2 Threat: Roads and Railroads

Severity: Moderate Severity Actionability: Highly actionable

Notes: Improving connectivity at road/stream crossings may allow RPK to colonize proximal habitats and move to better

quality habitats as conditions change; however, the ntrusion of additional fish species (whether native or non-

Report Date: January 13, 2016

native) is likely problematic for this species.

IUCN Level 1 Threat Agriculture and Aquaculture

IUCN Level 2 Threat: Annual and Perennial Non-timber crops

**Severity:** Moderate Severity **Actionability:** Moderately actionable

Notes: RPK inhabit areas of clean and clear water quality. Sedimentation and siltation degrade water quality.

IUCN Level 2 Threat: Livestock Farming and Ranching

Severity: Moderate Severity Actionability: Moderately actionable

Notes: RPK inhabit areas of clean and clear water quality. Sedimentation and siltation degrade water quality. Livestock

grazing is known to affect one RPK site.

IUCN Level 1 Threat Climate Change and Severe Weather

IUCN Level 2 Threat: Habitat Shifting or Alteration

**Severity:** Moderate Severity **Actionability:** Moderately actionable

**Notes:** Sea level rise may affect some RPK sites since the fish occurs in FW streams in extremely close proximity to

saltmarshes. Maintaining migration corridors and stream connectivity between saltmarsh and proximal FW

systems is important for species persistence as sea level rises.

IUCN Level 1 Threat Residential and Commercial Development

IUCN Level 2 Threat: Housing and Urban Areas

**Severity:** Moderate Severity **Actionability:** Moderately actionable **Notes:** RPK occur in coastal, southern ME areas with high development pressures.

IUCN Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases

IUCN Level 2 Threat: Invasive Non-native-Alien Species-Diseases

Severity: Severe Actionability: Actionable with difficulty

Notes: RPK are poor competitors with large predatory fishes. Carp degrade vegetation and physical habitat of at least

one RPK population.

**IUCN Level 2 Threat:** Problematic Native Species-Diseases

Severity: Severe Actionability: Actionable with difficulty

**Notes:** RPK are poor competitors with large predatory fishes.

## **Species Level Conservation Actions Assigned to Redfin Pickerel:**

\*Only species specific conservation actions that address high (red) or medium-high (orange) priority stressors are summarized here.

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Conservation Action Category: Habitat Management Biological Priority: critical Type: on-going

Work with landowners to enhance and restore riparian buffers on redfin pickerel occupied streams within agricultural lands.

### Stressor(s) Addressed By This Conservation Action

### Agricultural and Forestry Effluents

Conservation Action Category: Habitat Management Biological Priority: high Type: on-going

Work with agricultural landowners to restrict or eliminate livestock access to streams occupied by redfin pickerel.

### Stressor(s) Addressed By This Conservation Action

## **Agricultural and Forestry Effluents**

Conservation Action Category: Habitat Management Biological Priority: critical Type: on-going

Enhance and improve fish passage to proximal habitats so redfin pickerel can migrate to and colonize new habitats as necessary.

### Stressor(s) Addressed By This Conservation Action

Roads and Railroads

## **Guild Level Conservation Actions:**

This Species is currently not attributed to a guild.

# **Broad Taxonomic Group Conservation Actions:**

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

#### **Habitat Based Conservation Actions:**

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.