

Department of Fish and Game Invasive Species Program Report: 2021



House Fisheries Committee
March 11, 2021

Invasive Species Costs

- Environmental damage through competition, predation, new pathogens and habitat alterations:
 - Destruction of fisheries
 - Degradation of habitats
 - Reduction of biodiversity
 - Alteration of food webs
- Economic impacts:
 - Reduce or eliminate commercially important species
 - Alter water quality, water regimes and availability
 - Block transportation routes
 - Foul infrastructure affecting harbors, docks, hydropower, industrial pipelines
 - Restrict or reduce recreational and commercial opportunities
 - Reduce property values



Invasive Species

Invasive Species: a species that has been introduced to an environment where it is non-native, or alien, and whose introduction causes environmental or economic damage or harm to human health.

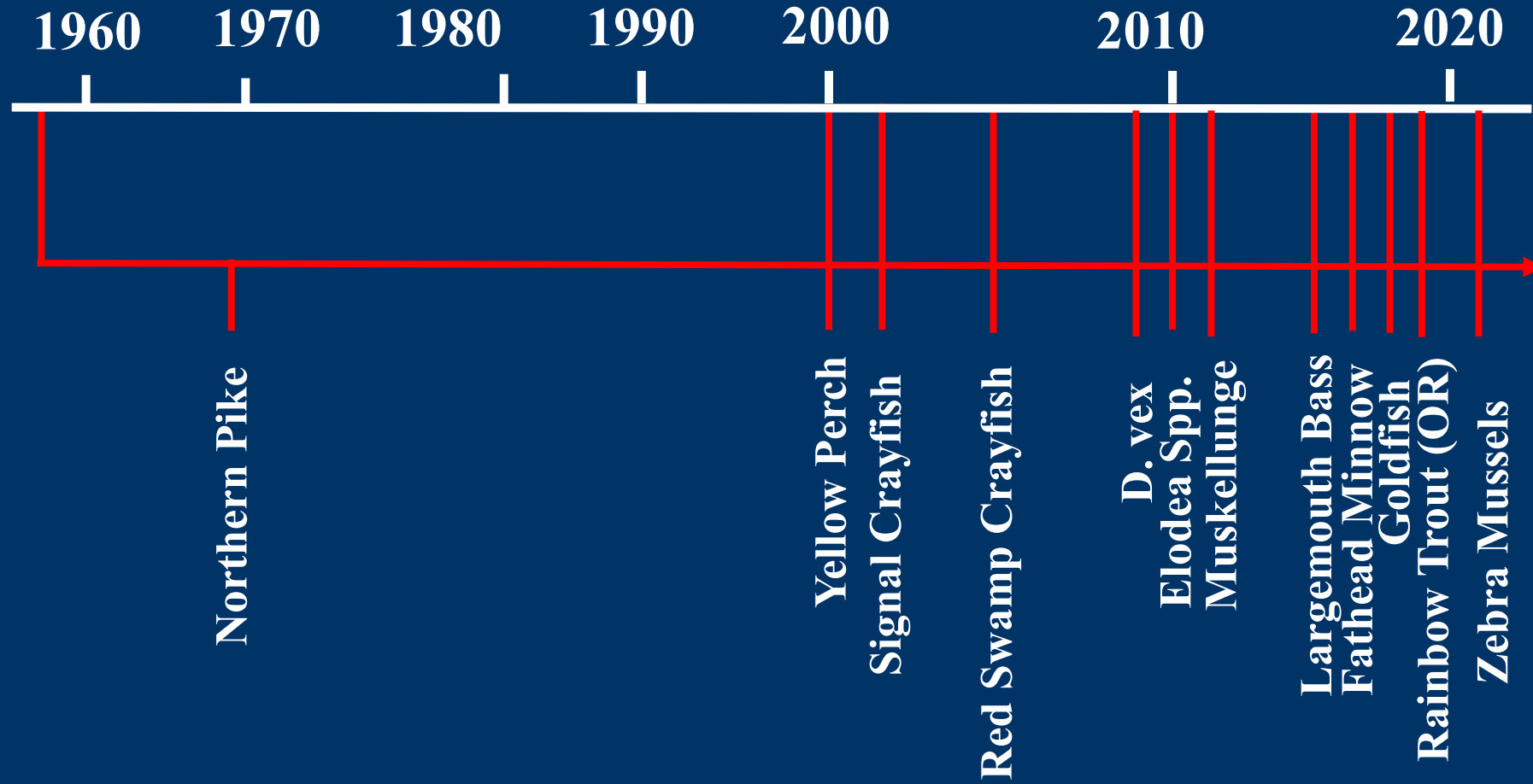
- Examples in Alaska: Northern pike in Southcentral, Elodea in many state waters

ADF&G strives for

- Collaboration & Partnership: State, federal, tribal and local governmental entities, statewide ad-hoc invasive species groups, universities, western region and nationwide groups.
 - Active partnership with DNR on elodea prevention, detection, response and control.
- Management & Control: Northern pike suppression, eradication and research.
- Containment & Research: Colonial tunicate in-water control , northern pike movement and eDNA.
- Support community-based early detection citizen science: European green crab, tunicates, fouling spp.
- Outreach and communication with stakeholders: anglers, boaters/boat owners, pilots, pet trade and pet owners, industry, public.
- Reporting: Online reporting tool, hotline and database.
- Strategic planning: Programmatic and multi-agency.
- Evaluation of existing statutory and regulatory authorities.



Timeline of Invasive Species Events



NORTHERN PIKE

Response:

- **Invasive Pike Program**
 - Monitoring
 - Research
 - Suppression
 - Eradication

Goals:

- Containment
- Prevent Spread
- Restore Fisheries



Eradication: Rotenone



Eradicated pike from 23 waterbodies in Anchorage, the Kenai Peninsula, and Mat-Su Valley



Suppression: Manual Removal



ADF&G's Invasive Pike Control Program has cost over \$5 Million to date



YELLOW PERCH

Yellow Perch Rotenone Treatment

Response:

- Eradication
“Perch Lake” treated with rotenone in September 2000 through a partnership with the MN DNR

Goals:

- Prevent Spread
- Protect Fisheries

No Yellow Perch Found since 2000



Dvex

Response:

- Removal of infested infrastructure
- Delineation surveys
- Outreach to stakeholders and community
- Research in situ control and containment

Goals:

- Continue to survey
- Containment



MUSKELLUNGE

Response:

- Rotenone Treatment (October 2018)

Goals:

- Eradicate the population to prevent spread

Presence was not public knowledge until eradication was complete.



G Lake Rotenone Treatment

LARGEMOUTH BASS

Response:

- Media attention (2018)
- Contacted bass biologists (2018)
- Surveys (Nets, Traps, Hook and Line) (2018)
- How did they get here?
- eDNA (Fall 2019)

Goals:

- Look for evidence of a reproducing population



FATHEAD MINNOWS

Response:

- Pathology Analysis
 - Detected a harmful parasite
- Minnow Trapping (2018-2019)
- Draining/Rotenone Treatment (July 2019)
- Continue monitoring

Goals:

- Eradicate the population to prevent spread



GOLDFISH

Response:

- Electroshocking (2018)
- Netting/ Trapping (2019)
- Pathology Analysis (2019)
- Emergency Exemption Permit (2019)
- Flow diversion/ Rotenone Treatment (July 2019)

Goals:

- Eradicate the population to prevent spread

Over 10,000 goldfish removed!



RAINBOW TROUT

Response:

- Survey (2019)
- Netting (2020)
- Pathology analysis (2020)
- Law enforcement citation
- Under-ice gillnetting

Goals:

- Eradicate the population to prevent spread



In 2019, 144 rainbow trout were illegally imported from a hatchery in Oregon and then illegally released into a closed lake on the Kenai Peninsula.

ZEBRA MUSSELS

Response:

- Inform the public and pet stores
- Provide guidance for destruction and disposal to pet stores, aquarium owners and the public.
- Collaborate with DNR and USFWS
- Educate the public and pet owners about prohibition on releasing pets and non-native species.

Goals:

- Prevent introduction and spread to state waters.



INVASIVE SPECIES REPORTING

The screenshot shows the Alaska Department of Fish and Game website. The header includes the department's logo and name, a search bar, and a navigation menu with links like Home, Fishing, Hunting, Subsistence, Viewing, Education, Species, Habitat, and Regulations. A secondary menu includes About Us, Join Us, News & Events, Management & Research, Licenses & Permits, e-Library, Maps & GIS, and Contact Us. The main content area is titled 'Invasive Species Online Reporting' and features a sidebar with a list of species including Atlantic Salmon, Didemnum Tunicate, European Green Crab, Gypsy Moth, Northern Pike, Norway Rat, Red-legged Frog, Rock Dove, Rotenone, and Invasive Plants. The main section has tabs for Overview, Methods of Introduction, Prevention, Legal Requirements, and Report an Invasive Species. The 'Report an Invasive Species' tab is active, showing a welcome message and a grid of icons for selecting the type of species being reported: Amphibians, Birds, Fish, Insects, Invertebrates, Mammals, Plants - Aquatic, Plants - Terrestrial, Reptiles, and Other.

Alaska Department of Fish and Game

Home Fishing Hunting Subsistence Viewing Education Species Habitat Regulations

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Species

Species Home

Animals

Invasive Species

- Atlantic Salmon
- Didemnum Tunicate
- European Green Crab
- Gypsy Moth
- Northern Pike
- Norway Rat
- Red-legged Frog
- Rock Dove
- Rotenone
- Invasive Plants

Pets and Livestock

Special Status

Living With Wildlife

Parasites & Diseases

Wildlife Action Plan

ADF&G Home » Species » Invasive » Report an Invasive Species

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Invasive Species Online Reporting

[Overview](#) [Methods of Introduction](#) [Prevention](#) [Legal Requirements](#) [Report an Invasive Species](#)

Invasive Species Reporter

Welcome to the State of Alaska invasive species reporter. If you are interested in reporting what you believe to be an invasive plant or animal, click on one of the buttons below to begin the online report. Your reports are important to us! Please include as much complete and detailed information as you're able. Upload digital photos, if you have them. Pictures really help us identify what you saw. A close up photograph of the individual and a photo of the organism in the setting in which you saw it can potentially help us identify the organism you're reporting. All reports go to ADF&G and ADNIR invasive species coordinators.

What type of species are you reporting?

Select one of the species categories below to submit a report. If you are not sure which category to select, you may choose "Other."

 Amphibians	 Birds	 Fish	 Insects
 Invertebrates	 Mammals	 Plants - Aquatic	 Plants - Terrestrial
 Reptiles	 Other		

The Alaska Invasive Species Reporter

- Online or smartphone reporting
- Upload photos
- Mark location on a map
- Provide details
- Database

Invasive Species Hotline
1-877-INVASIV