



SOUTHCENTRAL REGION

DEPARTMENT OF FISH AND GAME

Northern Pike in Southcentral Alaska

Northern Pike

In their native home range north and west of the Alaska Range, northern pike have evolved for thousands of years with other native species, all finding their own balance in the ecosystem based on the available habitat. Northern pike are a top-level predator wherever they occur, even in



their native range, having a powerful influence on the fish community. The level of their influence depends directly on the type of habitat available. For example, places with extensive northern pike habitat - weedy shallow water with low current, northern pike are the dominant species, such as in Minto Flats or the Innoko River. In these places, salmon populations either do not occur, or are

very small. In contrast, systems with complex habitat with deep lakes and swift clear streams harbor very little in any northern pike and support very large salmon populations. Examples in the interior include the Salcha River and the Delta Clearwater. In Western Alaska, examples include lakes in the Wood Tikchick State Park.

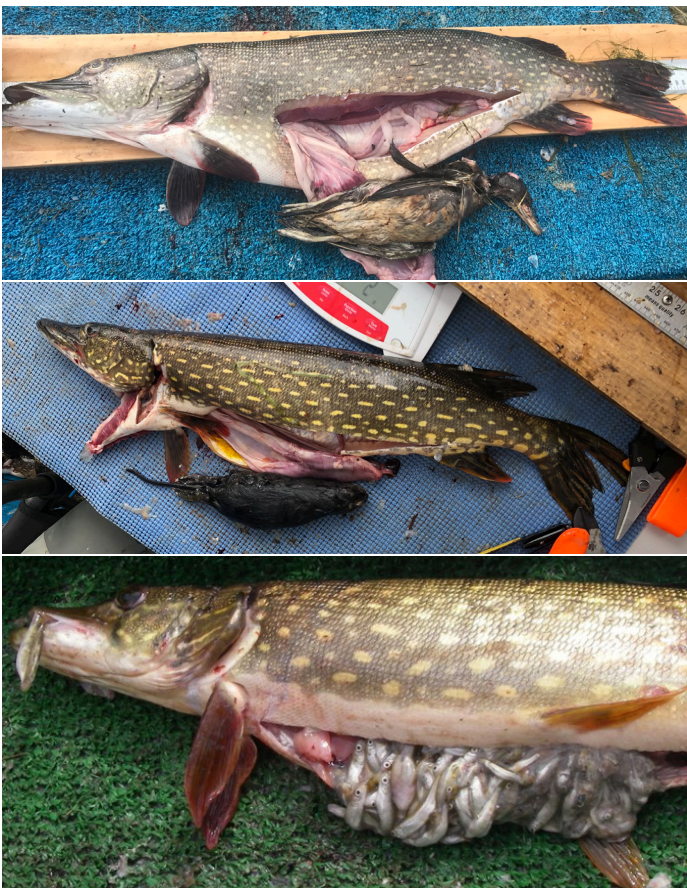
Northern pike are not a native species in Southcentral Alaska. Northern pike were first introduced to Bulchitna Lake in the Yentna River drainage in the 1950s. Since then they have been illegally released into lakes and streams in the Kenai Peninsula, Anchorage, and Matanuska-Susitna Valley areas. This illegally stocked species spread through connected water bodies and changed the entire balance of the fish communities in their new environments.

In Southcentral, the reason northern pike are a problem is the plethora of favorable habitat that pike thrive in which historically supported rearing juvenile salmon. These salmon evolved in the absence of a large apex predator population. Species such as Chinook salmon,



coho salmon, and rainbow trout have been particularly impacted. In these impacted areas, not only have pike become the dominant species, they've become the only species. There are many examples of this occurring throughout the region. Additionally, if pike become introduced into lakes stocked by the Alaska Department of Fish and Game (ADF&G), stocking may be discontinued or reduced, further affecting fishing opportunities.

Northern pike are known to travel extensively in search of food. Pike are top-level predators in aquatic food chains and are highly piscivorous (fish eating). They will attempt to eat any prey up to and sometimes over one-half their own size. Studies throughout the Susitna River indicate northern pike prefer to eat small fish such as juvenile salmon and trout, along with other species such as stickleback, whitefish, and sculpin. If those species are no longer present, insects become the dominate prey item. Northern pike are opportunistic feeders and will eat frogs, rodents, ducklings, muskrats, and young beavers as well.

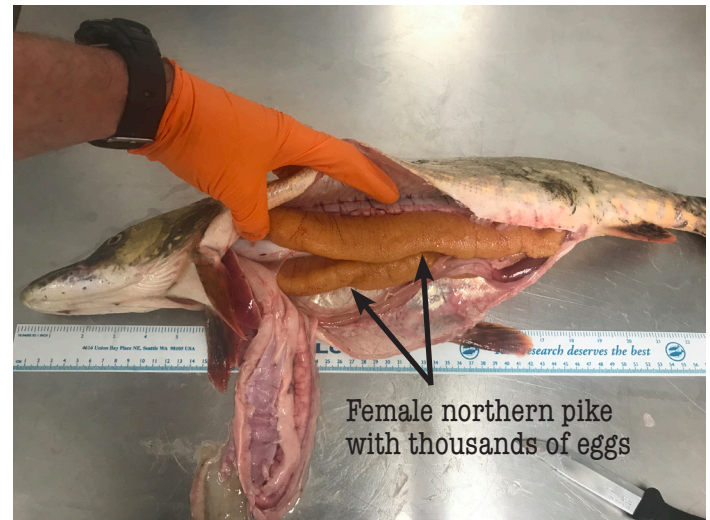


When introduced into a new system, northern pike grow and reproduce rapidly. Within a few years, northern pike that have established in a lake can wipe out all other fish species. Once this happens, pike begin feeding primary on invertebrates which reduces their growth rates, until only smaller 'hammer handle' pike are left.

One misconception about pike diets is that they have high rates of cannibalism, thereby controlling their own populations. Based on stomach data from over 30,000 pike in various locations throughout Southcentral, there

is a very consistent pattern. In locations that still contain other species of fish, smaller pike are found in less than 1% of pike stomachs. In places with no other species remaining, smaller pike are found in only about 2-3% of pike stomachs with invertebrates making up most of the diets.

Another thing many people don't consider is the largest pike are almost exclusively females. A large female can produce over 200,000 eggs each year, which results in more offspring than she can physically consume in a year.



Fish Transport and Stocking Laws

Illegal stocking is becoming more and more problematic, not only in Alaska, but also in other states. Invasive species are taking their toll on native fish, wildlife, and plant populations, not to mention taxpayer dollars in state and federal budgets. At the time of statehood, Alaska adopted laws regulating the introduction of nonnative species. Alaska now has some of the toughest laws in the United States governing the movement of fish and wildlife. Even ADF&G must obtain permits before moving and stocking fish.



- It is **ILLEGAL** to move, transport, or introduce any live fish to or from the waters of Alaska without a permit from ADF&G. These actions are against the law, and are punishable by large fines and/or a year in prison. This means you cannot put live fish, even "salmon fry or sticklebacks," in a bucket and take them home because you are possessing and transporting live fish without a permit. You certainly cannot take fish, including northern pike, from one waterway and put them into another.

- No live fish, other than tropical fish for aquariums, are permitted to enter Alaska.
- No live fish are allowed to be used as bait in freshwaters.

Southcentral Northern Pike Management

The Division of Sport Fish does not and will not manage to maintain an invasive species as a sport fishery, regardless of what it is. Therefore, ADF&G is actively working to remove as many invasive pike as possible to restore fisheries impacted by them.



One approach ADF&G takes to reducing pike populations is through population suppression using intensive netting. The goal of suppression projects is to reduce the population as much as possible as netting can rarely capture them all in a given area. These are labor intensive projects that must be conducted annually to be effective at reducing the pike population.

Netting does not usually eliminate northern pike completely. Young pike are most often found in very weedy areas, where fishing gear and nets are difficult to use, and pike must be moving to encounter the nets. Because pike are pretty sedentary when not spawning or feeding, catching all pike in a waterbody is unlikely.

Still, there are cases where intensive gillnetting programs are ADF&G's best option for keeping invasive northern pike populations in check. For example, a large scale northern pike suppression program takes place annually in Alexander Creek in the Susitna River drainage. Some



of the worst declines in salmon populations from pike predation have occurred in Alexander Creek, and ADF&G is trying to increase salmon productivity in this system through this effort.

Where pike can be successfully completely removed (eradicated) from an area, ADF&G has taken that approach, primarily by using chemical treatments. To date, pike have been eradicated from over 25 water bodies, mostly on the Kenai Peninsula and the Anchorage area, but some in the Mat-Su as well. A survey and monitoring program has been implemented to not only capture pike in known pike waters, but also survey suspected pike waters which will help guide future suppression and eradication projects.



Where Are The Pike?

A majority of the invasive pike populations in Southcentral occur in the Mat-Su Valley. The Mat-Su Valley covers tens of thousands of square miles and contains a myriad of shallow lakes, sloughs, and clear water tributaries, many of which are prime northern pike spawning and rearing habitats. While some locations are on the road system, most are remote and accessible only by boat, plane, or snowmachine.

The Kenai Peninsula is no longer known to contain any northern pike populations. A series of eradication projects over the course of a decade has removed all known populations. Several lakes in the Anchorage area also used to have northern pike, but they have since been eradicated. Only a couple lakes in the Anchorage area contain northern pike and they will soon be pike free as well.

Scan the QR code for the latest up-to-date map that shows which waterbodies northern pike are known to exist in Southcentral Alaska. Anglers can zoom into the areas on the map and review all information associated with pike and that waterbody.



You Can Help By Catching Northern Pike

You can first recognize your Southcentral Alaska fisheries are at risk from illegally stocked northern pike. There are significant concerns to freshwater productivity for juvenile salmon and native species.

Northern pike are sought by anglers because of their potential size and fierce strikes. With the rise of pike populations, sport fishing for northern pike has also increased in Southcentral rivers and lakes. In the last five years alone, inquiries to ADF&G about where to fish for northern pike has increased substantially.



Your fishing efforts can directly reduce the impact northern pike have on both native and stocked fish. There is evidence that intensive fishing pressure can help reduce pike. In a few lakes, anglers have been able to catch 80 to 90% of northern pike over 12 inches.

The best fishing opportunities and highest catch rates for northern pike in Southcentral occurs immediately after ice-out on lakes. During this time northern pike are aggressively feeding post spawn and trying to build back reserves lost during spawning while not feeding. During the early spring time northern pike will be located very near shore in weedy shallow bays and sloughs as this is their preferred spawning habitat. These locations are prone to heavy vegetation and snags and strong braided fishing lines and weedless hook setups are advised.



Top-water lures are an option in heavily weeded areas, and are good producers. Large, bright spinners, spoons, diving plugs, and surface plugs all work for northern pike. 'Buzz baits' or spinner baits, are becoming more popular as are top-water poppers when fishing for northern pike. Try floating frog and mice patterns, and 'hang on.'



Herring suspended under a bobber also works well. Remember, wait to set the hook until you are sure the pike has swallowed the bait. Whatever lure you choose, a steel leader ensures the sharp pike teeth will not cut through your line.

Fly fishing anglers often use salmon rods and 20 to 40 pound test wire tippets so they can throw bulky bait fish, leech patterns, or floating frog/mouse imitations. Both floating, sink tip, and full sinking lines can be effective, depending on the type of fly used.



When ice fishing, a popular setup is a quick strike rig baited with herring, hooligan, or hot dogs under a tip-up. Also, try jigging with spoons and jigs in shallow waters. Decoys also work well when jigged to attract pike to a spearing hole in the ice. Some specific locations allow for the use of up to five lines when fishing for pike through the ice. In addition, a couple lakes like Big Lake and Nancy Lake have additional special regulations for ice fishing for northern pike. So be sure to consult the current Southcentral Spot Fishing Regulations Summary booklet prior to fishing.

We encourage anglers to catch and keep as many pike as possible. In fact, it is actually illegal to release a live northern pike back into the water after catching it in Southcentral. If you do not want to keep the pike, you can return it to the water dead, or donate them to appropriate charities. For example, the local zoo, food banks, homeless shelters, or the Alaska Native Medical Center in Anchorage take northern pike donations. Call ahead to make sure they have room and how they accept the fish. Please see the current Southcentral Alaska Sport Fishing Regulations Summary booklet for additional information on northern pike.



Healthy Bank Stewardship

Most people understand healthy river systems are important for strong and healthy salmon populations. However, it is important to ensure that clean, healthy rivers don't stop at the water's edge. In fact, protecting and managing healthy streambanks and adjacent riparian areas are critical components to the overall health of a river system.

Vegetation along streambanks helps keep river water clean by filtering out sediment and pollutants from surface and storm runoff, reduces peak flows during rain and runoff events, slows flood waters, stabilizes streambanks from excessive erosion, and helps moderate stream temperatures. Vegetated streambanks also provide food and nutrients to fish and other aquatic organisms, as well as, provide critical habitat for rearing juvenile salmon. Any alteration to the streambank area reduces its ability to carry out these important functions, this includes repeat trampling of the vegetation while trying to get to your favorite fishing spot. While out on the river, please be respectful and follow any requirements landowners may have. By following the simple steps listed below, you can help maintain important habitat for salmon and be good stewards of the land.

- Use established trails to reach the river.
- Use established entry and exit points to get in and out of the river.

- Respect and abide by signs that close areas to fishing from the bank.
- Stand in the river to fish and don't place your pack or other gear on the vegetation.
- Pack out what you pack in, including discarded fishing line and tackle.
- Use the restroom in the provided facilities.



HOW ELSE CAN YOU HELP? BY REPORTING ILLEGAL STOCKING!!!

Call:

Alaska Wildlife Troopers (907) 352-5401
Invasive Species Hotline at (877) INVASIV

Report Online:

Scan the QR Code below to report the sighting or stocking of northern pike.

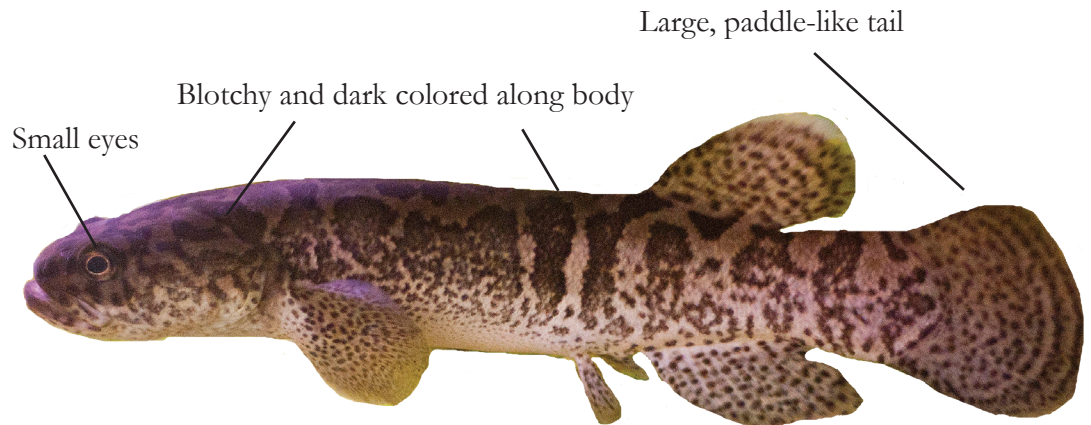


Nonnative and Invasive Species

Blackfish are not native to Southcentral.

Blackfish

- Blotchy dark green to brown color
- Paddle-like tail
- Pale cream colored belly with blotchy areas on sides
- Lower jaw longer than upper
- Small, seldom longer than 8"

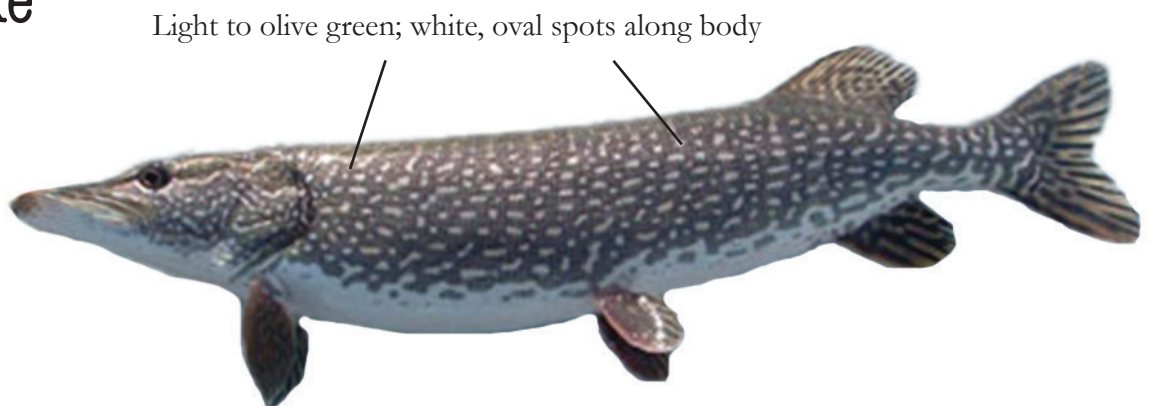


Northern pike are an invasive species in Southcentral Alaska.

If you catch a pike, you MAY NOT release it live back into the water. You must dispatch the fish. If captured on the Kenai Peninsula, please freeze and bring the pike into the Soldotna office.

Northern Pike

- Elongated body and head
- Flat snout similar to a duck's bill
- Light to olive green with white oval spots along the body
- Sharp teeth on the jaws, roof of mouth, tongue, and gillrakers



Sport Fishing Series Produced By:

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Sport Fish Information Center
(907) 267-2218
M-F 8am - 5 pm
Except on state & federal holidays



These opportunities
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