Finding Fish – The Smart Way

The Pike

What use is the best fishing technique if you are looking in the wrong spot?

A guide by the-fishfinders.com

Impressum

Cover design: the-fishfinders.com • **Pike-illustration:** Eric Otten

Photos and illustrations: all images © the-fishfinders.com, except:

- Figures 0.2, 2.4, 3.3, 5.4, 6.7, 6.8, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.22, 6.23, 6.24, 6.25, 6.27 (right), 6.29, 6.33, 6.39, 6.40, 6.41, 6.42, 6.49, 6.52, 6.58, 6.59, 6.64, 6.65, 6.66, 6.67, 6.68, 6.70, 6.75, 6.76, 6.78, 7.17, – Navionics (www.navionics.com)
- Figure 3.7 – SPRO (www.spro.eu)
- Figures 3.10, 3.12, 4.1, 5.5, 6.19, 6.28, 6.46, 7.16, p. 112, p. 191 – Deeper (deepersonar.com)
- Figures 1.1, 6.30, 6.31, 6.32, 6.62, 6.63, 6.71, 7.3, 7.8, 7.9, 7.10, 7.11, 7.15 – www.pixabay.de (Creative Commons CC0)
- Figures 6.1, 6.2, 6.3 – Weather and Climate (www.weather-and-climate.com)
- Figures 6.20, 6.21 – Underwater Ireland (underwater-ireland.com)
- Figure 6.35 – Wikipedia (www.wikipedia.org)
- Figures 0.4, 6.61 – Dr. Catch (www.doctor-catch.com)
- Figures 3.5, 3.14 – Pronature MV (www.pronature-mv.de)
- Figures 6.11, 6.12, p. 146, p. 147 – Jan Pusch (www.angelschule-nord.de)

- **Authors:** Martin Jacobs & Jens Biegemeier
- **Translation:** Franz Wolfeneck
- **Formatting and design:** Jens Biegemeier & Martin Jacobs
- **www.the-fishfinders.com**
- **1. release:** © 2019 MYTECHNEWS GbR, Frankenstr. 12, 20097 Hamburg
- **Editing:** Martin Jacobs, Jens Biegemeier

- **ISBN:** 978-3-9818475-7-4

Table of contents

Introduction

Finding Fish – The Smart Way

In the first book of our series „Finding Fish – The Smart Way," we introduced the zander. The pike is the protagonist of our second book. This freshwater fish holds a special place in the hearts of many anglers, largely due to its predatory nature, incredible size, and power. It's a selfie favorite.

The pike inhabits the northern hemisphere. Many have written about its nature and best fishing techniques—endless recommendations are available concerning baits alone. Hardly any other fish has received more attention. For all these reasons, the pike is a favorite amongst anglers.

„Finding Fish – The Smart Way" aims to complement the existing conversation with scientific research. While others might merely state „the pike likes to remain in cool waters," we wish to know why and when. And yes, pike like to hunt roaches. But what is their hunting strategy? And does this general wisdom apply at all times? These are just some of the questions we hope to answer.

Research on the pike has a long history and dates back over a hundred years. No other fish has been the subject of more studies. We have a lot to go through. Some of our previous ideas will be reaffirmed. Others might be challenged. A lot will be learned.

In response to our first book, many readers reached out to ask what inspired this scientific inquiry. The answer is simple: „Endless casts and many unsuccessful days on the water." At some point, we simply refused to accept that our technique, equipment, and baits were to blame. Something else was missing. We did not understand the behavior of our target. A long journey into the science of fishing followed.

This inquiry introduced us to unfamiliar territory. Suddenly, we found ourselves bombarded with hard data and figures. Although intimidating, we were amazed. As for the zander, we learned a lot about the pike's hunting strategies, drawing conclusions for effective baiting. Especially interesting is the research on the behavior of prey fish and their survival strategies. The contest between predator and prey, as between pike and roach, is captivating. Please, reach out to us if you share our fascination and wish to expand on this topic.

A strong passion for sharing knowledge motivated our publication. We present deep insights into the behavior of pike. We provide perspective on how, when and what pike hunt. You will learn more about the pike's preferred environment and discover the impact of varying temperatures and sunlight on its behavior.

We are confident that with this knowledge, you will be able to refine and accelerate your fishing. If we can quickly identify the best hotspots for pike fishing at different times of the year and in different waters, we will shorten our time spent searching significantly.

Before we proceed to chapter one, we wish to share a little bit about us: we are a blog and write after work in our spare time. We invest a lot of time and money into this passion—those scientific studies set you back a few bucks. We aim for about two to three studies to illuminate each topic in detail. For this book alone, we combed through 2,000 scientific pages, collecting, analyzing and summarising the information

into key points.

We also carry the editing, proofreading, layout design, printing, and Marketing ourselves. As we are not represented by a publishing house—not that we would know any—our Marketing so far is mainly driven by word-of-mouth, our friendly blog, and Facebook. We apologize in advance, should you find our Facebook posts annoying. Due to the time we spend writing our books, so far we have only managed to publish a few articles on our blog. We hope to improve in this area. Stay tuned for next year! Have fun!

Fishing Technology

„Roughly 90 percent of the fish stock restricts its movement to only 10% of the lake area.“

So how do we locate that 10 %? To complement our book, we leverage various tools to aid our search for the best hotspots. Modern technology enables us to take a closer look at the behavior and habitat of our target, allowing us to locate the best fishing spots for each context.

Scientific Studies

Since fish are an indispensable economic resource for humanity, it is only logical that a large number of scientists are exploring different topics and questions on all fish species. We consult these studies to draw conclusions on the behavior and habits of different fish. We learn about their hunting strategies, defensive tactics, prey preferences and how they react to changes in the environment.

Fish finder

fish finders help us to map out a water body. Acoustic signals are used to create an optical image of the underwater world for the human eye. This image helps us to locate the best hotspots for our target fish. Stationary fish finders, which are used on boats, are well known. However, the technology has gotten smaller, and we are now able to do the same thing from the shore, launching mobile fish finders to locate hotspots and fish.

Do you like the pike illustration?

Figure 0.5—Pike illustration by Eric Otten

Get the pike motive on different products in the shop of „Dicht am Fisch“.

The guys from DaF now have a variety of artistically sophisticated fishing motifs.

Via the following link you can have a look at the lovingly designed products: www.Shop-DaF.de

Chapter 3

Hunting and prey

7. Holding the prey: After securing the prey, the pike will hold it for some time to find a safe place to feed. Once it is safe, the pike takes an additional few seconds to place the prey in the right position.
8. Get the prey in the right position and devour it: When it appears safe, the pike brings the prey in position. It turns the prey so that, depending on the size, the head points to its throat and the fish lies on the flat side. Now it can swallow the prey. Depending on species and size, this step can take a few seconds.

The more a pike specializes in a prey, the better its odds.

3.1.7 Catch a pike in 10 minutes

The pike is known as a speedy predator. It greedily throws itself at its prey. But how fast are pike? How long do we have to wait? You cast and reel with little or more variation. The goal is always the same: You expect a strike.

Let‘s upgrade our fishing IQ with a study on the hunting behavior of pike. As part of this specific study, researchers ran multiple experiments, each with one pike. One of the experiments examined the hunting strategies pike employ in their hunt for roaches. Both the roches‘ and the pike‘s behaviors were studied.

For the experiment, wild pike and roaches were caught and then placed into a pool together. The entire hunting process was recorded by video camera and subsequently evaluated. The researchers were particularly interested in the following points:

1. Number of attacks
2. Type of attacks (ambushing followed by a surprise attack vs. a chase)
3. The ratio of successful to unsuccessful attacks
4. Number of captured roaches
5. Time until the predator becomes active for the first time
6. Time from the first active action to the attack

Now, it gets interesting. In the 68°F (20°C) pool, almost all pike swam motionless near the bottom or hid near hiding spots. Even as the prey was placed into the pool, the pike remained motionless. In 35 attempts, 166 attacks were recorded, of which 25 were successful—a 15% success rate. The number of prey placed into the pool played a minor role in determining the outcome of the experiment.

Pike are known as ambushing predators. However, the researchers also documented various chases. Leading up to the first attack, the pike usually remained motionless or hid near two wooden beams—likely, the beams provided the predator with only a marginal advantage. Nonetheless, the pike hunted most effectively from this ambushing position. 17 of the 25 captured roaches were caught with this strategy. In those cases where the first strike failed, the attack turned into a chase more than half the time. However, the predators fared far worse with this strategy.

Up, up, the prey has arrived!

Contrary to expectations, the pike remained calm as the researchers placed the prey into the pool. On average, the pike took eight minutes to react to the prey. This is a big surprise. Who would have thought that pike swim alongside their prey in such a contained space without striking? Wow...

We don‘t even want to imagine how many baits must have passed pike with them thinking: „Hey ... prey ... looks interesting ... ups, it‘s gone already.“

The attacks themselves usually didn‘t last very long. On average, the first attack came to an end within two minutes. However, adding to this the eight minutes it took to peak the pike’s interest, we end up with a total of 10 minutes. 10 minutes is a damn long time for such a fast predator.

Remember

If we are to believe these experiments, pike, contrary to common belief, don‘t appear to be quick and agile predators. It seems pike take a lot longer to strike than the average bait spends in the water. Instead, the pike is an efficient predator, as proven by the 15% success rate—other studies even report success rates of up to 25%. The pike prefers to attack from an ambushing position. This allows the pike to locate its prey and to launch a surprise attack. The instincts of some pike seem to require this time to make a decision. That is not surprising, because an ambushing predator has time. It can wait for the right moment and the right prey.

What can we conclude from this study for our fishing?

It appears to be necessary to hold the bait in the pike‘s vision for as long as possible. But how can we best do this?

We assume that our success rate will increase if our baits appear more attractive to the pike—the duration the bait spends in the vision of the pike matters most. To achieve this, try to reduce the speed at which you reel.

Many wobblers, blinkers, and spinners are reeled in quickly. Lurking pike may not be attracted by baits that speed past them. If you cast heavy baits in shallow water, you will be forced to reel quickly as otherwise, your bait will shoot to the bottom. So, we suggest using a bait that floats or sinks just slightly. Such bait can remain longer in the water. Dead baitfish might be best suited to bridge the 10 minutes.

3.2 The pike and its territory

Often, we oversimplify the pike‘s territory, not doing justice to this adaptable predator. Young pike regularly have only one fixed territory. The risk of falling prey to a larger predator is high, so they seldom leave their small territory. In adulthood, the boundaries of their hunting grounds become blurred, and they have a larger radius of action. Studying this aspect of the pike‘s behavior is essential to our fishing success as it

well. Records show time intervals of 30-60 minutes in which pike remain motionless.

As already mentioned, a smaller portion of the pike population is more active in their search for food and travels long distances to hunt prey. Camouflage is less significant to these pike, with speed and perseverance taking the leading roles. The time that active pike allocate to motionless resting ranges only from 10-20 minutes. So we can see, there are two different types of pike. How do you fish for one compared to the other?

3.2.3 How to catch a motionless ambushing predator?

The two types require different fishing tactics. An active pike is easier to catch than an ambushing one. Those that move are a lot more likely to cross paths with our baits. Also, active pike will have to eat more as their calorie consumption is higher. That is another reason why these pike are easier for us to catch.

With an ambushing predator, things look different. It does not chase after every prey. It leverages its hiding spot and camouflage. The preferred attack strategy is the ambush. It remains motionless in its hiding spot for many minutes, waiting for the right prey and moment. Therefore, we have to get our bait as close as possible in front of the pike—make it enticing. The ambushing pike must see it as an easy prey. Let the bait rest from time to time as you reel it in.

The good thing is that the ambushing pike stays in one spot. To reach this spot with our bait, we should not approach without a plan. If you just cast your bait randomly, you will most certainly miss the motionless predator. That is more of a strategy for an active pike. We cannot tempt the ambushing predator from its hiding spot with random casts.

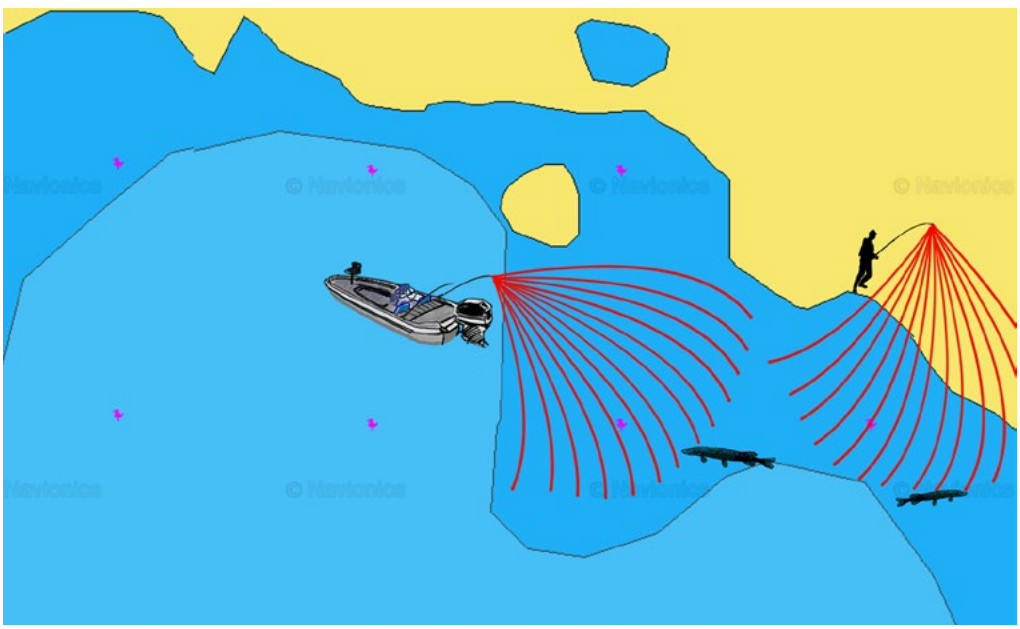


Figure 3.3—Ambushing predators - Strategic fishing of a hotspot

Our best chance to hook this elusive predator is to strategically fish the area. You start to cast at twelve o'clock and work your way clockwise, cast after cast. Since we do not know how deep the predator is staying, it is not easy to pick the right bait. Our knowledge of the pike, which we expand on bit by bit throughout this book, must guide our decision.

Remember

Fishing for active pike is easier, as their lifestyle causes them to cross paths with our baits more frequently. However, these pike make up only a small portion of the overall population. Fishing for lurking predators is a lot more complicated. For these, we have to adjust our fishing strategy. Lurking pike often hide between branches, trees, and water plants. For this kind of fishing, we need baits that do not easily get tangled up—move the bait with care. Fishing this way is a little more challenging but will result in more strikes. After all, if you stalk lurking pike with lots of casts, eventually you will also hook an active hungry one.

3.3 The pike and its prey

3.3.1 Hunger and feeding

The pike's hunger seems to know no bounds. From what one hears and reads, the pike appears to be one of the most voracious predators in our waters. Many of us have seen the videos in which pike hold large prey in their mouths. Are these pictures true to reality? How voracious really is the pike?

Animals differ in their habits, when and how they eat. For example, almost all owls eat at night. Other animals eat less regularly and spread over the day. We shall learn about the pike's feeding habits in this and other chapters.

We can subdivide living beings more or less into two groups based on their feeding habits. The first group digests while eating. The second group eats, digests and eats again after digestion. As a predator, the pike belongs to the second group. Essentially, a hungry fish is more likely to strike our baits than a well-fed one. However, that alone does not guarantee success.

Various factors influence the feeding behavior of the pike. On the one hand, the pure necessity of feeding dictates behavior, on the other, factors such as the availability of the prey and the prey species play a role. What is also important is how the pike prefers to feed. The presence of other pike can have a great influence as well.

Last but not least, aspects such as temperature, oxygen, wind, weather, and more, decide when the pike will hunt. In the end, the personality or instincts of the individual pike will trigger the hunt. At this moment, it is necessary to be with the right bait in the right spot.

The findings in the next chapters may help us to better assess the likelihood of a pike

Such information is fundamental for us to select the right baits and to place them at the appropriate depth or location. Each bait mimics a prey, and we must present it to the pike accordingly. The better we can imitate the natural movement of the prey, the better our chances to hook a cautious pike. The following behavioral patterns provide a first insight into the complex behavior of prey, enabling us to optimize our bait selection and presentation.

Schooling is the ultimate protection against predators for almost all whitefish. Schools of bait confuse the predator and make it more difficult for it to single out individual fish. If a predator seeks to divide a school of bait with a targeted attack, the individual fish will try to regroup immediately. However, species differ in their success with this strategy. A fish that does not rejoin the school of bait after an attack likely will end up as prey.

Schools of bait escape either upwards or downwards—sometimes they attempt to get behind the predator. This defense strategy requires a lot of free space. Amongst dense vegetation, the formation of the school of bait is more difficult, causing fish to become easy prey.

A second successful defense strategy is camouflage—the fish are well adapted to their environment and become blurred with their surroundings. The different patterns of the perch make a great example. If perch live near the overgrown shores, they have more pronounced stripes than their conspecifics in open water. It is important to mention that perch live on their own. Their escape is usually not coordinated with other fish. However, they demand a lot of cognitive load of the pike, making targeted evasive maneuvers around edges, corners, and obstacles. These obstacles serve as visual protection. Often, the fish then remain motionless very close to the stones, edges or obstacles.

A third defensive option is to make a quick escape. If a prey takes off quickly, the predator will not stand a chance. In order to spot the predator early, the view must be unobstructed. The water should be clear and the prey must have good eyes.

3.4.2 Roaches

Roaches are the preferred prey for pike in many waters. It seems that the pike has adapted its hunting strategy very well to this species. The roach prefers to stay in shores with well-developed vegetation. However, we can also spot it in areas with little vegetation.

Irrespective of structure:

Before we get more specific, we should note a few common features that apply to most roaches. Roaches have a slim build, which gives them speed. They flee quickly when a predator gets too close. Records have shown that roach can accelerate at 6.5 ft/s (2 m/s). That is quite the speed. It is hard to imagine how the much larger pike manages to accelerate its thick body to catch up.

A bubbling surface

Roaches often form schools to protect themselves from attacks. Near the shore area, they tend to flee towards the surface. If a predator attacks the school of bait directly, it splits into two parts and immediately reunites behind the predator. The renewed school of bait formation is so good that only very few fish are isolated. Pike lack the element of surprise for the next attack. However, depending on the situation, some pike will launch a second attack.

The water surface magically attracts the roaches in case of danger. Some of them swim directly on the waterline of the surface. We do not know exactly why. Researchers assume that the perches can swim quicker if part of their body is out of the water. Another theory is that predators avoid hunting near the surface to not end up as prey for birds or other animals.

If no other escape-possibility remains, the roach jump out of the water. Different experiments have confirmed that roaches can perform several successive jumps. It is noteworthy to mention that roaches only jumped in the presence of a predator.

Remember

So, if we are on the water and see roaches jumping, we can assume with a very high likelihood that:

1. a predator is right underneath
2. a predator is hunting

That is what we have been waiting for. There is hardly a better indicator of a great fishing day. When we witness this behavior on the water surface, we have to be fast. It is the right time and the right place to cast out bait. The predator—sometimes multiple—are close to the surface and biting. Our bait should imitate whitefish and be kept shallow.

How much time do we have?

Not a lot. Remember, pike only hunt 1-3 prey fish before they stop feeding. However, that will require several attacks as not each attack is successful. We probably have a few minutes till the end of the hunt. As long as the surface is bubbling, we have time.

The pike does not chase roaches for long. Roaches have much better stamina. According to the motto „Either, I get lucky or not," it leaps at a single roach or a school of bait. An individual pike attack last only a few seconds—single-digit range. That is astounding when we consider that the pike actively pursues other prey species for up to 1.5 minutes leading up to the final attack.

When dusk sets in

Depending on the season, when dusk sets in, a large proportion of the roaches leave

Pike defend their territory

Let us put this another way: When pike collide, an interaction ensues. Whether that is a defense reflex, is something we cannot state with certainty at this point. Researchers have observed the interactions of pike in various experiments. Especially larger pike are very aggressive towards their smaller conspecifics. Researchers observed this by introducing small pike to the territories of their larger conspecifics. They were protected only by a wire net, which separated the large from the small pike. What was astonishing is that despite the net, the large pike tried to attack the smaller ones over and over again. They even tore their mouths open on the wire net and could not be dissuaded from doing so. If it was not for the net, the large pike would have attacked and eaten the small ones in a heartbeat.

Attack pattern of pike attacking pike

Figure 3.14—Cannibalism - photos: Peter Berg, guide at Pronature-MV.de

Various attack patterns can be observed and researched as pike hunt their own conspecifics.

According to multiple studies, larger pike observe small pike very closely—they are on high alert when in close proximity. In many experiments, even if the small pike stayed camouflaged, inconspicuous, and did not move, the larger pike faced them. The trigger for an attack differed between attacks.

The following attack pattern was observed:

1. The larger pike swam motionlessly and waited, without forcing an attack. The attack usually started when the smaller pike were moving or somehow distracted.

2. The larger pike approached the smaller ones from behind, bumping the tail fins with their mouths. As soon as the startled, small pike flipped around, the head was attacked.

The surprise factor seems to increase the chances of success and serves to trigger the attack. What is interesting is that attacks on pike that remained motionless in the water were much rarer than attacks on active pike.

3.4.5 Food competition

Food competition among pike is well documented, however, what implications this holds for us anglers has been rarely discussed. Personally, we certainly had not given much thought to this topic before we started our research for this book. Food competition is the non-scientific term for „Intraspecific food competition" that describes the fight for the same resources among conspecifics. It comes to an increase in competition if many individuals of the same species reside in one area. This competitive behavior has been observed in pike as well—anglers have documented in pictures quite often. Like everyone else, we have seen the incredible images of pike protruding from other pike's mouth. However, often this behavior is misinterpreted and classified as cannibalism. It is commonly assumed that pike are part of each other's diets.

However, we should not equate food competition with cannibalism. Food competition describes the competitive behavior among pike over prey and territory. If a pike captures a fish, another pike may be tempted to attack for reasons of competition or hunger. Hence, that pike will try to steal the prey. One advantage of such behavior is obvious: It does not have to expend energy on hunting itself.

Food competition often has a side effect. Competing individuals, such as competitors of the same species, eat more often than if they were to live alone in their habitat. Let's reflect on the pike's attack pattern with food competition in mind, focusing especially on the events that follow after a successful attack.

Securing the prey

We have established that the pike only requires a few seconds to secure its prey. Its teeth are sharp, and its mouth is strong. But here is the kicker: If the pike smells or sees another pike while securing its prey, the time required to secure the prey increases. The pike will not drop its prey, however, becomes vary of competitors, fearing to lose the prey or to be eaten itself. It seeks shelter and escapes, all at the same time if possible. That ultimately prolongs the process of securing the prey.

Holding the prey

This step is impacted by the presence of other pike as well. As with securing, the duration for which the prey is held in the mouth also rises sharply.

Turning of the prey

As we suspect, when turning the prey the same applies. Always on the look-out for other pike, it takes its time while turning the prey. What normally only takes a few

Chapter 4

Environmental factors

How often and when these phases occur differs between years and also depends on the latitude. If you frequently experience such short temperature spurts, you should make one or the other extra catch.

4.2.3 Temperature variations and energy consumption

As we have already seen in chapter 3.3.1 „Hunger and feeding“ on page 29, pike feed little in winter at low temperatures. The reason is simple: they require much less energy as their metabolism slows down during a drop in water temperature. Let‘s assume that at a water temperature of 72°F (22°C) a pike hunts a prey fish of 4“ (10cm) length. That energy should serve it for 1-2 days. With a water temperature of 61°F (16°C), the same energy intake should last 1.5-2 days longer. At a water temperature of 36°F (2°C), the pike can last several weeks. The individual activity of the pike causes a variance of these values. Still, it is quite amazing that a prey fish can provide enough energy for several weeks during the cold season.

But how can that be? Pike are cold-blooded animals which body temperature and metabolism adapt to the respective water temperature. At a water temperature of 39°F (4°C), the heartbeat slows down. The entire metabolism reduces to a minimum. Fish and especially pike are perfectly adapted to cold water. For this reason, even the smallest changes in water temperature can cause their activity to increase or decrease in an instant—they start biting from one moment to another.

But not only in winter are low water temperatures available. In summer, the lower layers of the water column offer cool water temperatures, too. Large pike can actively react to various temperature fluctuations and choose the optimum water temperature; they choose warmer or colder water layers. At a depth of 25-65 ft (8-20 m), the water is noticeably cooler even in the hot summer. At these depths, the pike can escape the stress of high water temperatures. They reduce their energy consumption considerably and get by with less prey. Studies in the Great Lakes between the USA and Canada have proven this behavior in pike. During warm days, the largest pike (>30“ (75cm)) visited depths of 40 ft (12m) or deeper. Since fish avoid big and sudden temperature-fluctuations, they do not dive quickly but take their time. How long exactly depends on the respective pike. Their metabolism must first adapt to the respective water temperature.

Remember

The water temperature has a massive influence on how hungry pike are. Cold temperatures below 43°F (6°C) slow down the activity of some pike causing them to eat only every few days. If the water is warmer, the activity level increases among all pike. There is a good balance between exercise, appetite, and feeding between 50-70°F (10-21°C) water temperature. In these temperatures, you do not have to worry much about pike being lazy.

If the water is noticeably warmer, it will stress the larger pike. Although their energy requirements are now high, it does not mean that they will feed more. Many pike will try to manage their energy consumption by moving to cooler water or by reducing their movement to a minimum. One or the other pike may even go hungry because this often consumes less energy than active hunting.

When the temperatures are cold, we should reconsider our bait presentation. Once the pike‘s metabolism slows down, it is all about energy preservation. It will think twice about tracking a fast prey/bait. Likely, it will ignore it and wait for slower prey.

The same applies to warmer water. The pike must save energy and is grateful for easy, careless, sick or dead prey. Slowly reeled artificial bait or a dead prey fish offer the best odds in these unfavorable water temperatures.

4.2.4 Temperature and effects in stagnant waters

Large and small lakes, but also oceans, are standing waters.

The temperature in a water body is not the same everywhere. Even small fluctuations can have a major impact on the habitat of fish, depending on the water body. For example, the oxygen content of a water body changes as a function of temperature.

It is difficult for us humans to comprehend these changes because we hardly notice or do not see them. If we look down from above the waterline, much of what has a direct influence on pike fishing remains hidden.

Let‘s look at the effects of temperature on water from different angles. Compared to pike, humans do not have to adjust quickly to temperature changes. We have some days of rain and others of sunshine. From time to time there is a rise or decline in temperature. Some days we were a jacket, on others a T-shirt. Our life is pretty easy with respect to managing temperature fluctuations. If we travel by plane, things look a bit different. Then we become acutely aware of strong climatic changes. However, our body temperature remains around 99°F (37°C).

In the water, the changes are much more acute for the fish. Pike are cold-blooded animals. That means that their body temperature adapts to the ambient temperature. The temperature has a decisive influence on the pike‘s metabolism. We humans, on the other hand, are warm-blooded animals and our body regulates its own tempera-

the cloudier it is. Nutrients promote algae and phytoplankton growth, making the water greenish. That process occurs most frequently during summers, yet may arise at any time throughout the year. Should algae bloom during summer, the process reverses during the following months, leaving behind noticeably clearer waters in autumn.

Visibility, to a large degree, is independent of coloring. Thus, it is not uncommon to find brownish/greenish waters at both 6 feet (2 meters) or 8 inch (20 centimeters) visibility. It is eutrophication—excessive richness of nutrients in a lake or other water body—we must turn towards to identify the driver of visibility.

Some lakes have a brownish color due to dissolved humus. Other lakes have a yellowish color due to dissolved clay. If the lake is ‚nested' with many bays, it can even happen that the individual sections differ from each other. The color of the water absorbs the individual colors or wavelengths of the light to varying degrees. Brown water, for example, absorbs light very strongly in the blue and UV spectrum. As a result, the same objects may appear in different contrasts.

Remember

The blue of a bait looks paler in brown water than in green water. Experienced pike anglers adjust their bait choice to the visibility, but only a few account for the water color.

The color of a water body can also change. If the phytoplankton dies, it sinks to the ground and bacteria begin their work. They decompose the algae and consume the last remaining oxygen. The process often occurs in autumn. The water changes color from green (living algae) to grey (dead algae). Most fish move from the grey water. Fishing greener parts promises better odds.

4.5.2 Hunting at different visibility and water colors

The location influences the hunting conditions. If the water body is polytrophic, visibility is often restricted to only a few inches / centimeters. The low visibility, diminish the odds for the predator. Consequently, it is possible that the pike ends up expending more energy to hunt than it takes in through its prey.

The pike stock in these waters can gradually decline if humans do not artificially increase it. A good example here is the Große Müggelsee near Berlin, which has become murky since it started to eutrophy in the 1960s. Wastewater and agriculture caused a high nutrient content which in turn led to the complete death of the underwater vegetation. For years, the water was so turbid that there was no clear water period at all. Only since the end of the 90s, have researchers witnessed short clear water periods again. A few underwater plants have been able to recapture a small part of the lake. A small fish population has established itself.

If a water body is meso- or oligotrophic, the visibility is over 6.5ft (2m). In these condi-

tions, the pike can see and hunt well. Since to succeed it requires good visibility and camouflage, it finds optimal hunting conditions in clear waters at dusk. It can lurk near hiding spots, and its sight is good for attacks at short distances. Its instincts calculate the success of an attack.

Remember, hunting involves several steps. A prey must first grab the pike‘s attention. The prey should appear to be easy in order for the pike to launch an attack.

Reaction distance

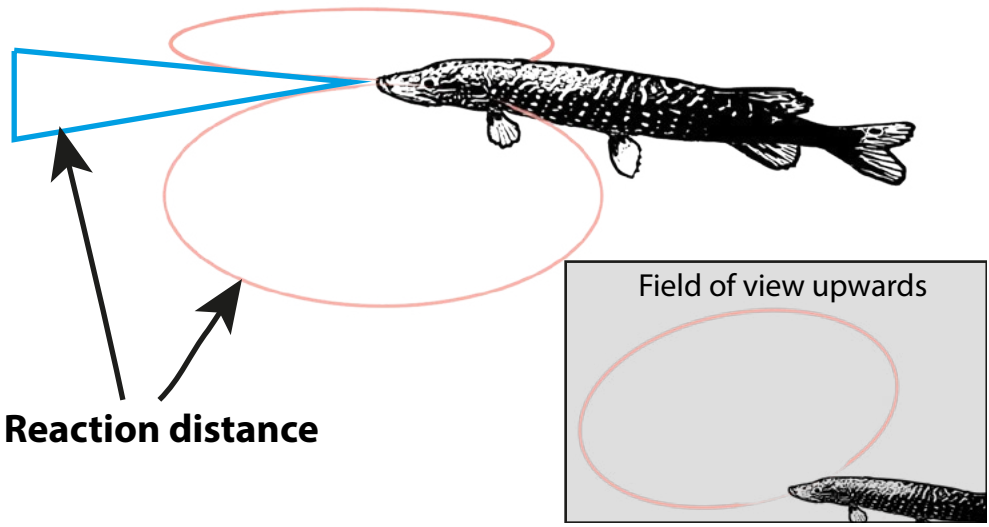


Figure 4.10—Horizontal and vertical reaction distance

In principle, we want to know when the pike becomes aware of our bait—when does it react to a prey? We can assume the following:

- With visibility below 3ft (1m), the preferred distance is always slightly above the respective visibility (example: visibility 24“ (60cm) | distance to prey approx. 28“ (70cm))
- With a visibility above 3ft (1m), the preferred distance is always slightly below the respective visibility (example: visibility 6ft (2m) | distance to prey approx. 4.5ft (1.5m))

Remember

The visibility has an influence on when the pike reacts to nearby prey. However, being interested does not equal a desire to attack. Only if there is a realistic chance for the pike to catch its prey, will it launch an attack.

Chapter 5

Habitats

5.1.1 Not all vegetation is created equal

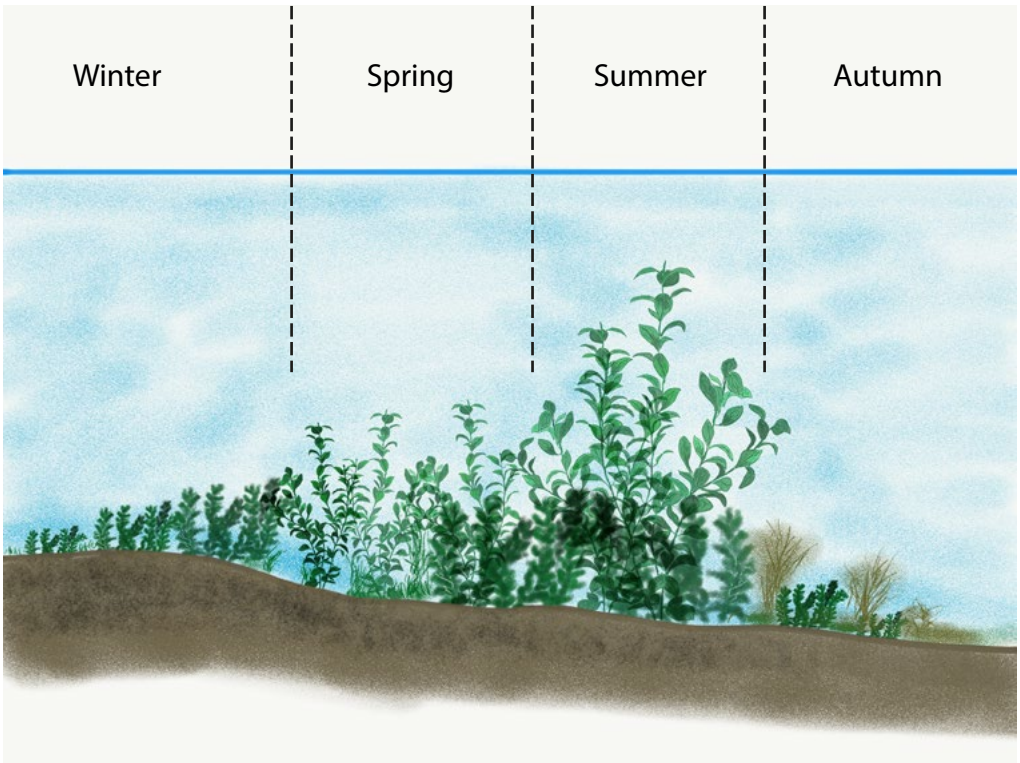


Figure 5.2—Annual cycle of underwater plants

The various underwater plants do not always provide the same living conditions for pike. Plants are also living creatures and develop differently. For this reason, they also have a differentiated effect on the pike. In dense vegetation, we will rarely find large pike. In the winter months, this becomes particularly clear. Some underwater plants die almost completely in late summer and autumn. These only provide a habitat for pike during the warm months. Other plants retreat during the colder months of the year but still cover the bottom of the water. They offer protection and cover to the pike even in winter, only deeper.

Also the density of the plants different depending on the species. In summer, the Hydrilla can form an impenetrable area with sprouts up to 25 feet (eight meters) long. Small pike and many prey fish find a perfect habitat here. Large pike are denied access. Many of them cannot hunt effectively. Other plants are much more suitable for them.

The seasonal changes ensure that the fish of the different species get distributed throughout the year. When plants grow, they attract fish. If they die, the fish move on again. We have to react to these seasonal changes, and cannot just stubbornly fish the same spot all year round. Of course, we might be able to land a pike or two but most of the time we will go home empty-handed. We overgeneralize all too often. If we catch a big pike on a specific edge in spring, we tend to think we have found the ultimate

hotspot in our waters, and head for it the entire year. Here is another example: Most anglers likely have one or two favorite baits. If we catch one, two or even three pike with one bait, we proclaim it to be the best pike bait in the world in no time. We might be right, however, only at a certain time or place. To sum it all up in one sentence: the answer is not always black or white, sometimes it is grey.

5.1.2 Whoever finds the prey finds the pike

Most prey fish of the pike are small and live in constant danger. They need protection, and they find it in the vegetation. The denser and more extensive the vegetation, the more prey fish there are. That, in turn, attracts many predators, including pike. Within the vegetation, the fish population is up to seven times higher than outside.

The structure of the water body has a significant influence on the distribution of underwater vegetation. Shallow waters often have wide and sweeping shallow water zones with abundant vegetation. In deep waters, the edge of the shore often drops sharply due to the deep basins. For this reason, shore zones are often much narrower than in shallow waters.

5.1.3 How much vegetation should there be?

Pike of catchable size, seek less vegetation because large pike must have a clear path for their attack. If the vegetation is too thick, the pike cannot accelerate enough to attack. The escape speed of the smaller prey, on the other hand, is hardly affected. So we have to find the optimal vegetation to find the pike.

5.1.4 Search for vegetation

Observations, records, and notes from previous years are helpful. If we have previously spotted a field of water lilies, we can assume that it will be in the same spot again this year. Unfortunately, it takes some time for us to spot the water lilies as they first have to work their way to the surface. In general, observations of greater depths are impractical, as underwater plants are difficult or even impossible to spot from above. Murky water makes this challenge all the more difficult due to the low visibility.

5.2 Fish finder

With the help of fish finders, we can spot vegetation. Manufacturers have developed several technical approaches to identifying underwater plants. The advantages are obvious: fish finders allow us to scan the depths, the habitat of the fish, which normally remains hidden to us.

5.2.1 Fish finder for boaters

Boaters regularly use fish finders. Since boaters fish the entire water body and not just the shore, they depend on technical aids.

5.2.2 Fish finders for fishing from shore

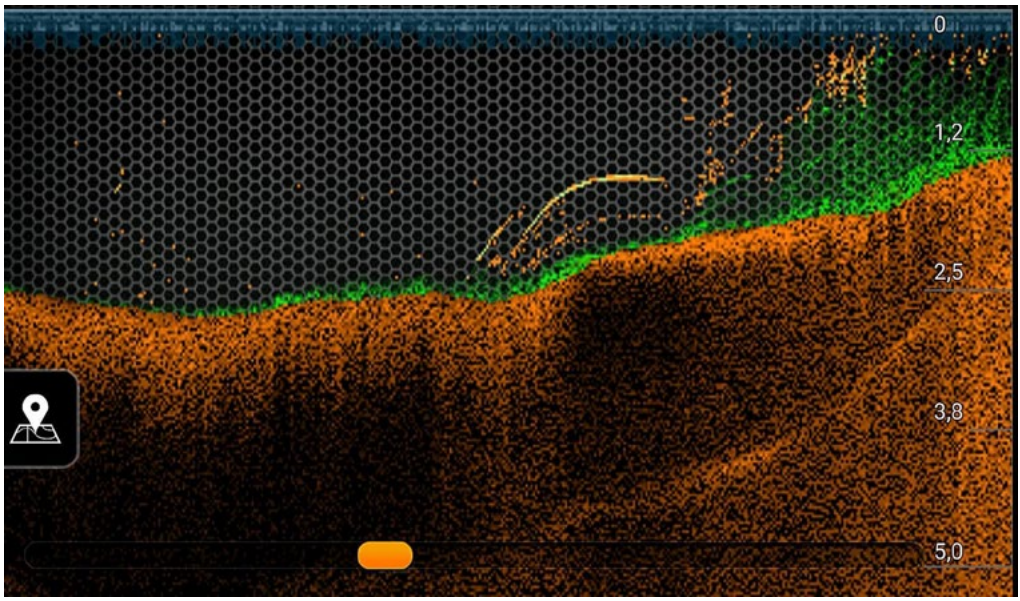


Figure 5.5—Vegetation recorded with a Deeper

Not only boaters can use fish finder. The Deeper has revolutionized fishing from the shore. You can attach the depth sounder to your line and then simply cast it out. On your smartphone or tablet, you can track what is going on underwater. The beauty is that the vegetation is displayed in a different color.

Remember

Fish finders are an essential part of our fishing equipment. They aid us to quickly locate good hotspots. The opinion about depth sounder is still divided among German anglers. While some love fish finders, others curse them and say that this has nothing to do with fishing anymore. We chose not to take sides.

We would like to point out, however, that fish finders do not come with a guarantee for large pike. Pike fishing is a challenging undertaking, and even the best baits and the best hotspots do not guarantee success.

The Ultimate Fish Finder Guide

Finding Fish – The Smart Way.

The biggest fish finder book of all times!

Well-founded expertise on more than 160 pages

Find fish faster, fish more!

now available on the-fishfinders.com

Buying the right fish finder

Understanding the fish finder

Find the best hotspots

Catch more fish

A "the-fishfinders.com" book

Chapter 6

The Year of the Pike

6.1 Calendar periods

Although we are now familiar with many chemical and biological influences, we have not yet investigated how time, especially the calendar periods, impact the pike and their behavior.

Calendar periods? Is it not enough to account for the seasons? We have established that „in spring the pike stay shallow“ and „in autumn they bite like crazy at the edges.“ Is that not information enough to estimate the best hotspots?

Absolutely not! Each season covers a period of about three months. During these three months, the living conditions under and above water can change rapidly, requiring us to adopt our bait presentation fundamentally. Remember the potential of oxygen scarcity in midsummer, or take spring as an example:

The pike spawn in spring. During this time they stop feeding completely. However, there is also a time before spawning and after spawning when they feed more frequently. During spawning, all pike stay close to the shore, rendering fishing trips to the open water unsuccessful. After spawning, the pike migrate to their respective summer territories—but not all at the same time.

There is no clear classification based on time, either. Pike do not orientate themselves on the calendar when spawning but on the water temperature—ideally 41-54°F (5–12°C). In one year, we might get the optimal temperature in March, in another in April. Flat lakes generally warm up faster than large or deep ones. The same applies to lakes in the lowlands. Whether in the south or north, the geographical location also greatly influences the duration of the individual periods. All this clearly illustrates that there is no easy answer to the question on the best spring hotspots. To answer this question, we have to account for a multitude of factors, for example, the depth of the water body, the temperature and whether the weather is cloudy.

What might work for anglers during spawning season can cause many slow days in early summer or midsummer. Specific bait colors, advertised with large trophy pike, too often get bought without much questioning. We frequently forget that those baits may work well in one water but not in another. We should also account for at what time of the day the trophy pike was hooked. Manufacturers and resellers usually do not provide this information.

In the US, classifying hotspots, baits and bait presentations according to calendar periods has become standard. Although there is no strictly defined classification, anglers account for more than just the four seasons.

As the 49 US states—we ignore Hawaii, Puerto Rico and smaller islands but include Alaska, as there are some pike—span five main time zones and an area of almost 4 million square miles (10 million square kilometers), a general classification of the best hotspots according to seasons was nonsense from the start. The spawning periods between some US lakes might be months apart. Even in Germany, weather conditions only a few hundred miles / kilometers apart can vary significantly. In some years, Hamburg might have to wait 2-3 weeks longer than Munich for spring to arrive. For this reason, it makes a lot of sense to break down the year into calendar periods.

Remember

A good understanding of how the calendar periods impact the pike will guide us in locating hotspots and our bait selection. The aim of the following chapter is to assess how time affects pike fishing, allowing us to make the most of our precious fishing time. We should mention right from the start that the calendar periods are flexible. They vary from year to year, from latitude to latitude and often from water to water.

The hotspots we share for each calendar period are intended to give you an idea of where to find pike, why they stay there, and what the ideal weather conditions might be. Nobody should try to apply this knowledge one-to-one without accounting for context. We can never with 100% percent accuracy perceive what goes on underwater and above, so the pike will not always react the way we expect. Even the smallest variations can cause some pike to portray unexpected behaviors.

For the calendar periods, we have deliberately refrained from the classification into lakes, rivers, and reservoirs, as pike orientate themselves on the vegetation, which in turn does not depend on the water type. Our explanations, to a large extent, are applicable to many water bodies that host pike. It does not matter whether a lake or river is small or large. We also explicitly include brackish water from marine regions.

If from our perspective, a water body deserves to have some special features mentioned, then we will have already done so in another chapter.

By describing hotspots irrespective of the water body, we can categorize our knowledge. Categorization is useful and we humans love to do so. Nevertheless, we anglers have to be flexible, to react if the context requires adoption. That way, over time, we will be able to instinctively adapt to the most diverse situations on the water.

12 months – 10 calendar periods

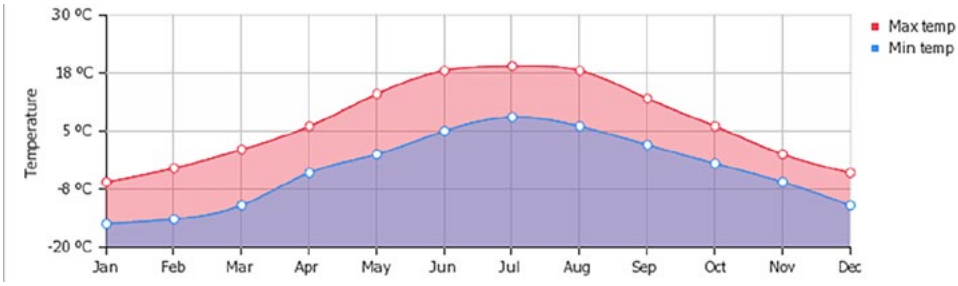


Figure 6.1—Water temperatures in Sweden (Lake Storsjön)

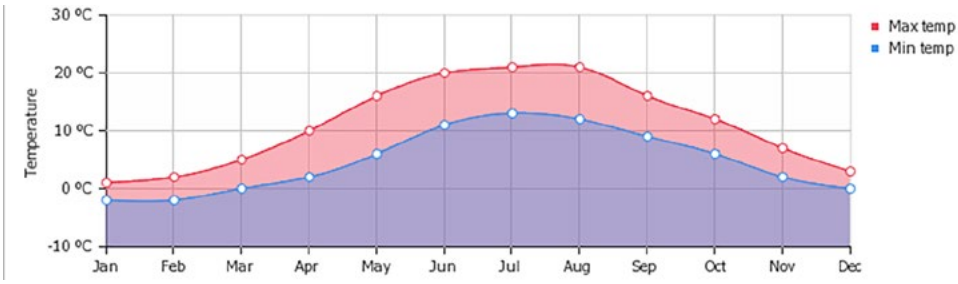


Figure 6.2—Water temperatures in Germany (Rügen Bodden)

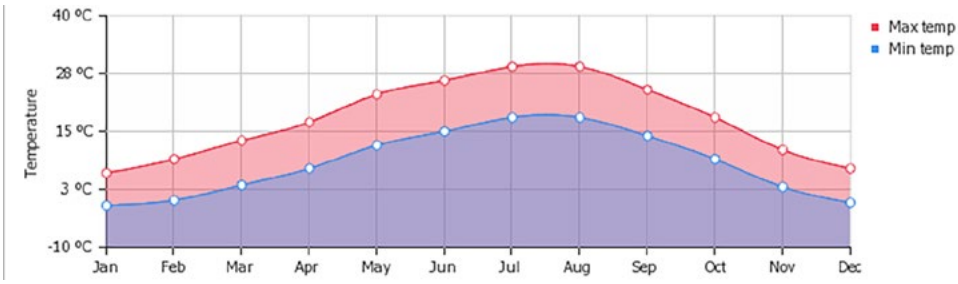


Figure 6.3—Water temperatures in Italy (River Fiume Adige)

1. Winter is here - Frost (water temperature: 32-46°F (0-8°C))
2. Before spawning (water temperature: 32-46°F (0-8°C))
3. The spawning period (water temperature: 39-54°F (4-12°C))
4. After spawning (water temperature: 43-54°F (6-12°C))
5. The end of spring (water temperature: 50-63°F (10-17°C))
6. Summer (water temperature: 59-70°F (15-21°C))
7. Midsummer (water temperature: > 72°F (22°C))
8. Late summer (water temperature: 59-68°F (15-20°C))
9. Autumn change (water temperature: 50-59°F (10-15°C))
10. Cold temperatures (water temperature: < 50°F (10°C))

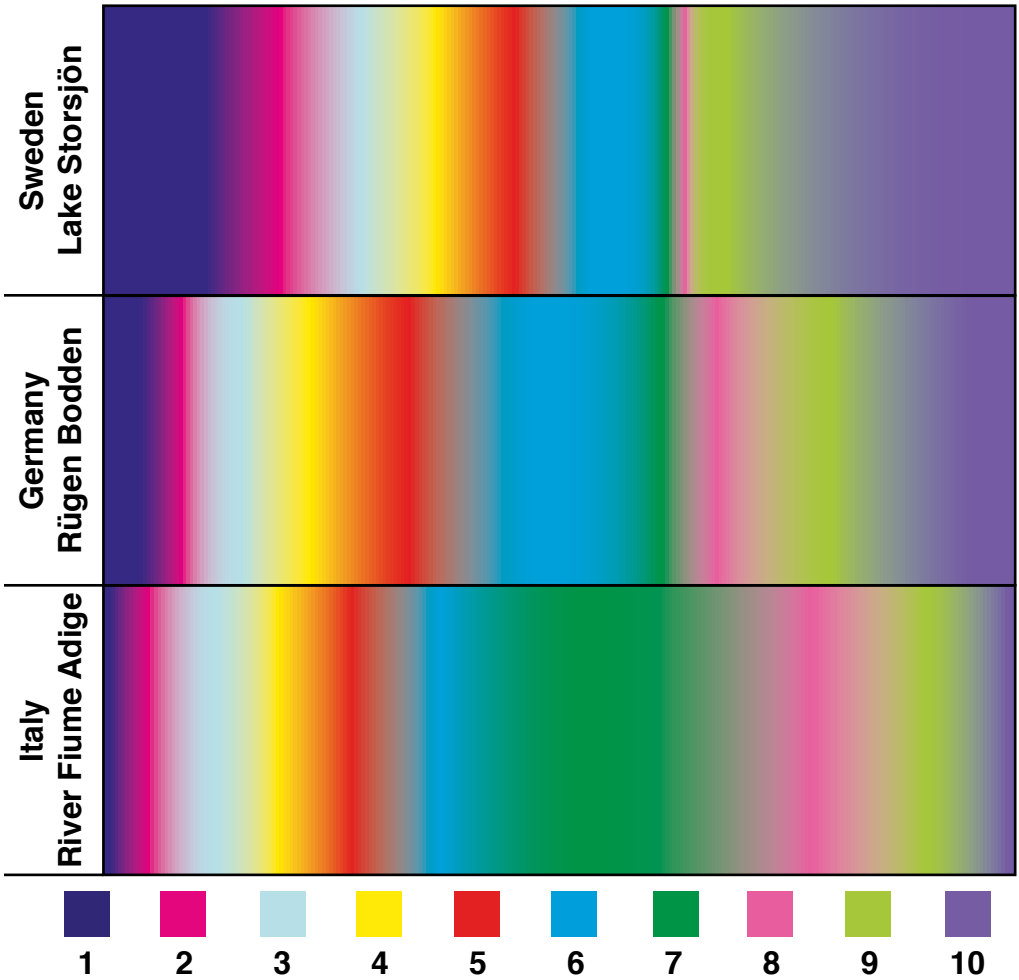


Figure 6.4—Differences across the calendar periods for Sweden, Germany and Italy

It is easy to see in this illustration that the calendar periods can have a different duration between regions. For some anglers, the summer period is more important, while for others the spring period receives a lot of attention.

The classification according to calendar periods has the additional benefit of making more informed decisions during international fishing trips.

6.2 Winter is here - Frost

Water temperature: ± 32°F (0°C)

We know little about pike fishing in the deepest winter. Likely, that is because fishing, and therefore also the conventional literature, focuses more on the warmer seasons. It is also not easy for science to carry out experiments and studies in winter.

For the pike, this period is one without major changes. The temperature of the water

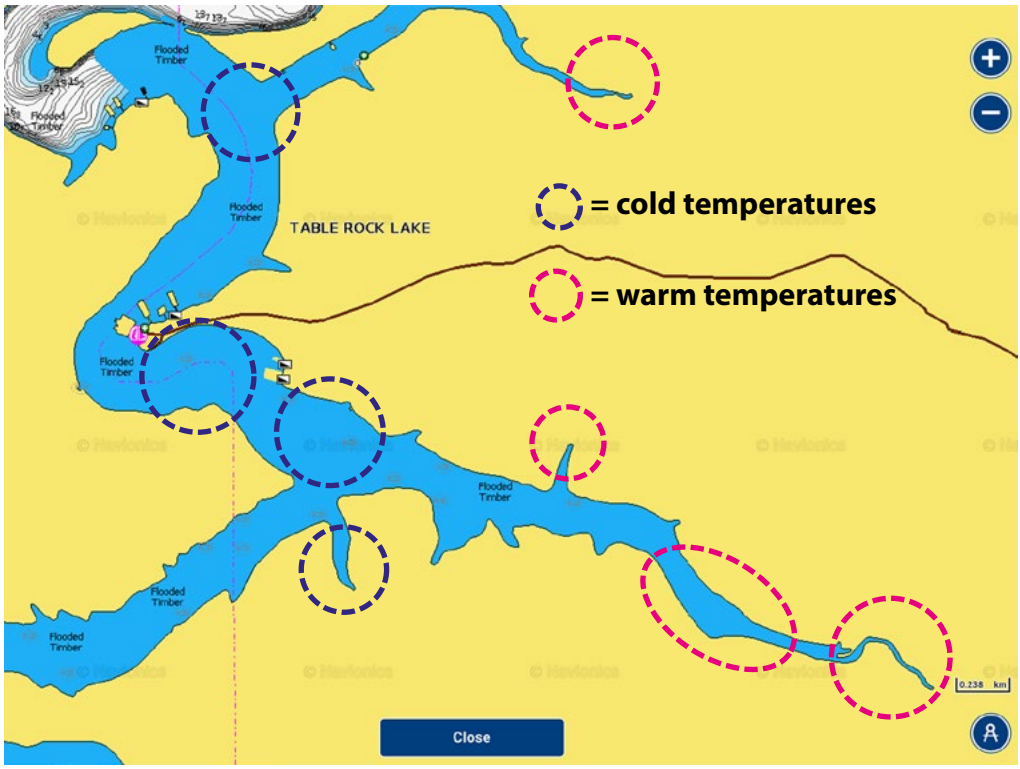


Figure 6.15—Pike in river systems during the cold season

In rivers, after one or two warm days, pike move to the shallowest areas. We can catch the pike quite well from land in these spots. If a cold front comes in again, the pike return to the deeper water.

6.2.7 Baits

Pike do not feed as much when it is cold, however, they still have to replenish their energy reserves from time to time. Even if the pike catch only 1-2 prey fish every few days or weeks, they continue to grow. They gain weight which is great news for us anglers.

Pike prefer easy prey. They prefer to scavenge for dead fish on the bottom or to hunt smaller fish. Cannibalism among pike is now at its lowest level for the whole year. Trying to activate the pike with fast bait movements, will not bring a lot of success.

The beginning of the year is the perfect time to try out alternative baits. Small and easy to hunt prey fish do not exist yet—90% of the fish hatched last year did not survive the first year, and the remaining fish are no longer small. Hungry pike grab whatever they can find. If you try a fly or crab now, you can be quite successful.

Remember

Be cautious of general statements that claim that pike stay in specific spots during winter. Studies have clearly shown that pike display a multitude of behaviors. Some cover long distances in the winter and others restrict their territory to a mere 160ft (50m).

The temperature, oxygen content, and light intensity have a decisive influence on the pike. They are the most important triggers during the coldest season of the year. It is not hunger that causes the pike to bite, but external stimuli. The pike hunt for easy prey but without exerting much energy. During this time of the year, the pike can go without food for multiple weeks, so having to wait a day or two longer for easy prey to come by does not make a difference. Changes in the weather that potentially bring clear and sunny days impact whether the pike will bite.

Oxygen-rich zones are the hotspots with the best odds. Here we can find the prey that is not as well adapted to the cold season. Some of them are constantly on the lookout for these spots.

Note from the „Fishfinders“ Team

We would like to ask that you read the chapter on the spawning season with sustainable fishing in mind. It is essential to comply with country-specific laws, in particular, those relating to closed seasons and catch sizes. When we talk about hotspots and baits in the following chapters, we do not encourage or call for a violation of these laws.

6.3 Before the spawning season

Water temperature: approx. 32-46°F (0-8°C)

As spring approaches, the sun has a great effect on life underwater. Pike instinctively prepare for spawning, subordinating all their behaviors to this period. Spawning season is only a short while away. The pike will now gradually leave their winter territories. The males and large females make their way to the spawning grounds. The water temperature allows the pike to move slightly more. Since they need strength to reach the more or less distant spawning grounds, they fill their stomachs again. Depending on the latitude, the spawning process begins at different times. In Germany, for example, the pike will make their way to their spawning grounds around February/March, while in Finland, the pike do not start to move until the end of May/beginning of June.

Pike travel different distances to their spawning grounds. The distance depends on the water body. In small lakes, the spawning grounds may only be a few metres away,

If a lake has shallow bays with sufficient space for spawning, the hotspots prior to spawning are located on the edges of the shallow bays (red line). If the weather is nice, you can try your luck on the shore (green line). As already mentioned, males often reach the spawning grounds far ahead of females.

6.3.1 Finding Pike

The pike concentrate more and more at the potential spawning grounds. For us, this means that most of the shore areas, which later in the summer are flooded with pike, are empty. A badly prepared fishing trip will, therefore, result in slow days more often than not. An intensive analysis of the potential spawning grounds is therefore immensely important. Whoever spots them has taken the first step. With that step taken, we only have to find the pike in the predefined area.

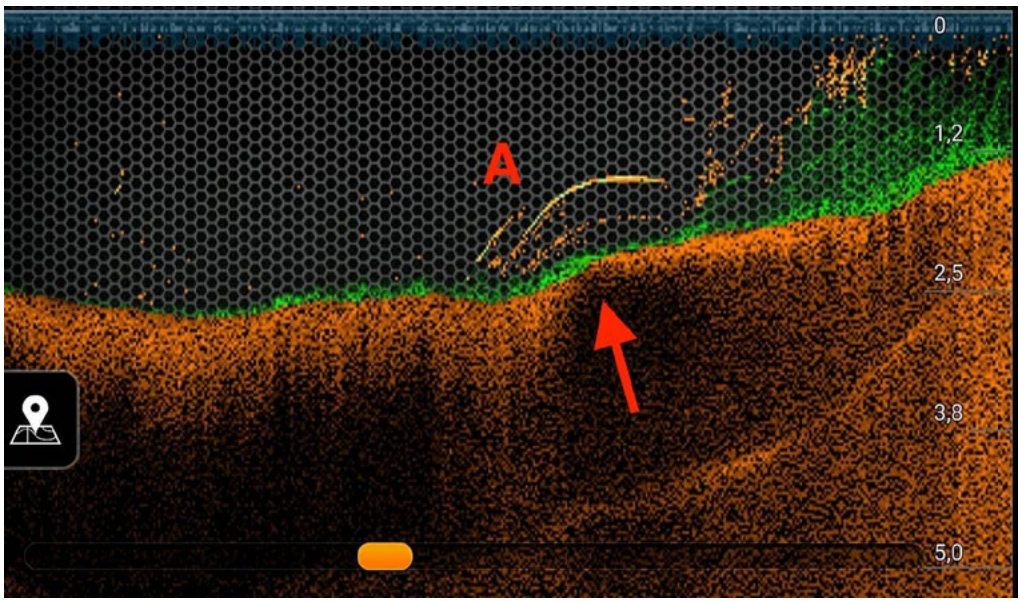


Figure 6.19—Find pike with the Deeper

So close to the shore we can drop a mobile fish finder to locate the pike (point A). A soft bottom (red arrow) gets displayed with a narrow bottom line. The ground here is not as dense and firm as clay. The soft ground provides turbid water that warms up more easily.

Anyone who employs a fish finder should study its functionality thoroughly. You have to learn to interpret the image accurately for it to provide reliable insights. A fish finder is a great tool, but not a magic ball.

Remember

Fishing at the beginning of the spawning season can be very promising. Not many anglers are out, and most pike will not remember last season‘s experiences. With the pike staying close to the shore, they are easy to reach from land. Boats are not of much use at this time of the year because the shallow waters are hard to navigate.

In general, the pike love shallow water when the weather is nice and sunny. The sun manages to raise the water temperature from 36-39°F (2-4°C). That does not sound like a lot from our perspective. However, for a fish a rise in temperature from 36-39°F (2-4°C) can cause quite the spurt in energy. We humans are not different. We, too, long for the sun during winter and enjoy each sunbeam. If the sun has warmed the water for the whole day, in the afternoon, the pike will move close to the shore in the side arms and flat bays. They try to get as shallow as possible. The more branched the side arms or bays are, the more attractive they are to pike.

Darker water warms up faster than crystal clear water. For this reason, a short check of the water color is advised. Secluded bays and arms cut off from the main water will usually be cloudier than open areas that are well connected to the main water. Those who have the choice should choose darker water sections.

If a sudden cold front appears, the pike quickly pull back into the deeper water or into the main part of the river. Winds from the north often bring the cold fronts. In these conditions, if the water body allows for it, the pike like to stay near the edges at depths of 10-16ft (3-5m). They still bite because they must feed. On windy days, too, the pike portray the same behavior. If the wind comes from the south, the weather does not necessarily cool down. Then the pike remain in wind-protected sections and bays, however, without staying too shallow.

6.3.2 Bait presentation

As spawning approaches, it becomes increasingly difficult to get the pike to bite. The feeding intensity decreases steadily during this time. Easy prey promises the most success at this time. With dead baitfish or slowly reeled artificial bait (flies, crabs, fish) we should be able to persuade one or the other pike to bite. In general, natural prey fish are low in numbers, so alternative food sources are important. If you like to go fly fishing during this time of the year, you can let off steam in the ditches, shallow bays and side arms. The winter vegetation offers plenty of space for fly fishing. Also, during this season, few anglers are fishing, so that the best spots are usually free.

The males feed more actively than the females. The aggressiveness of the males is now steadily increasing with the courtship of the females about to start. It is the only time in which the pike actively group themselves. If you catch one pike, you have a great chance of hooking a second one in the same spot.

6.6 The end of spring

Water temperature: 50-63°F (10-17°C)

In spring, vegetation blossoms and underwater life develops explosively. Another change of location is imminent for the pike. After recovering from spawning, the first pike make their way to their summer habitats on the banks of rivers and standing water bodies. All this happens just prior to the spawning season of the prey fish. However, that time has not arrived just yet so pike are still scattered here and there. Yet, one thing unites them all: They are feeding more and more actively, and thus stay in close proximity to their prey. In the cool spring, the best spot to find prey and predator is warm water.

6.6.1 Warm water, an indication of a hotspot

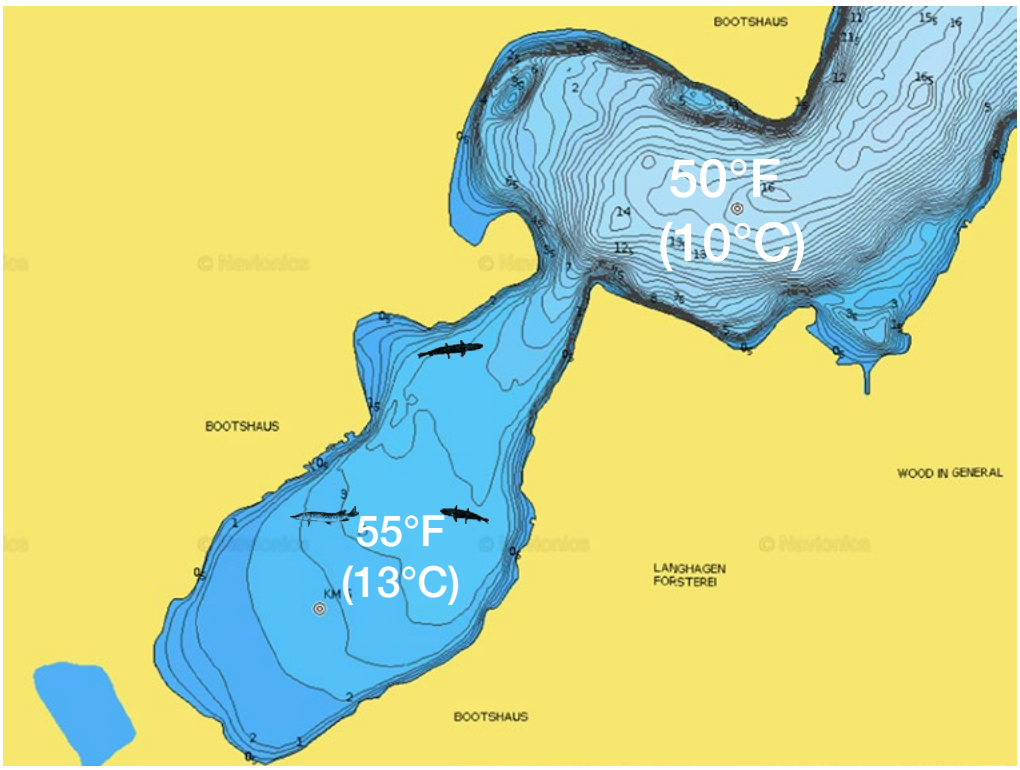


Figure 6.25—Warm bay with narrow access

In spring, the water finally starts to warm up sustainably. At an average water temperature of 50°F (10°C), most fish move towards the warmest region in their environment. Flat bays become a good hotspot. They warm up faster than areas with deeper water. If the bays connect to deeper water only via a narrow passage, that is perfect.

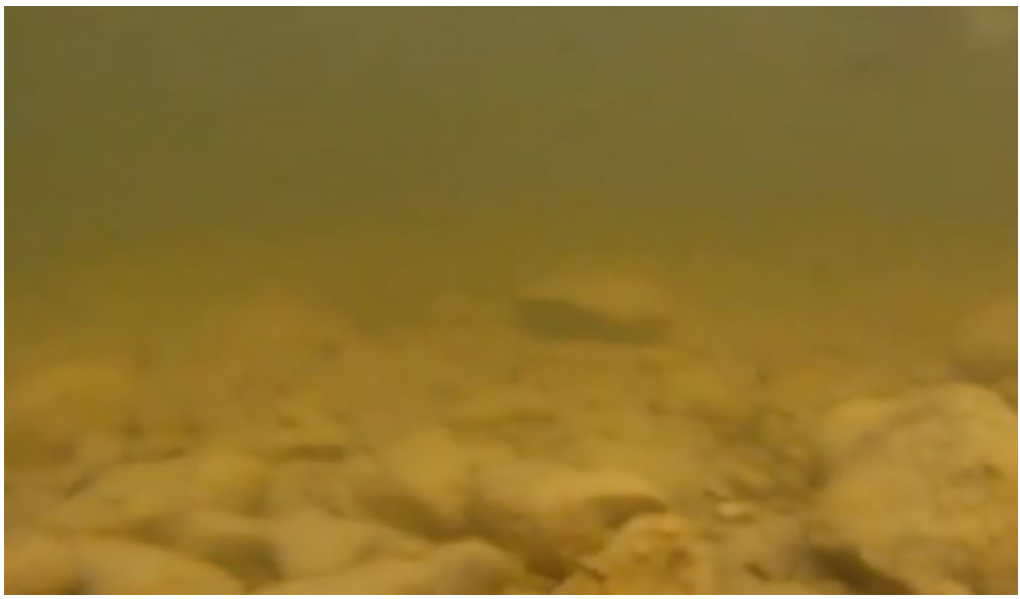


Figure 6.26—Turbid, brownish water

The water color also plays an important role. Turbid or brown water warms up faster than clear water. Many fish move to these waters. We can spot turbid and/or colored water quite easily. If you want to be certain, you can employ some technical aids to find the warm parts of the water body.

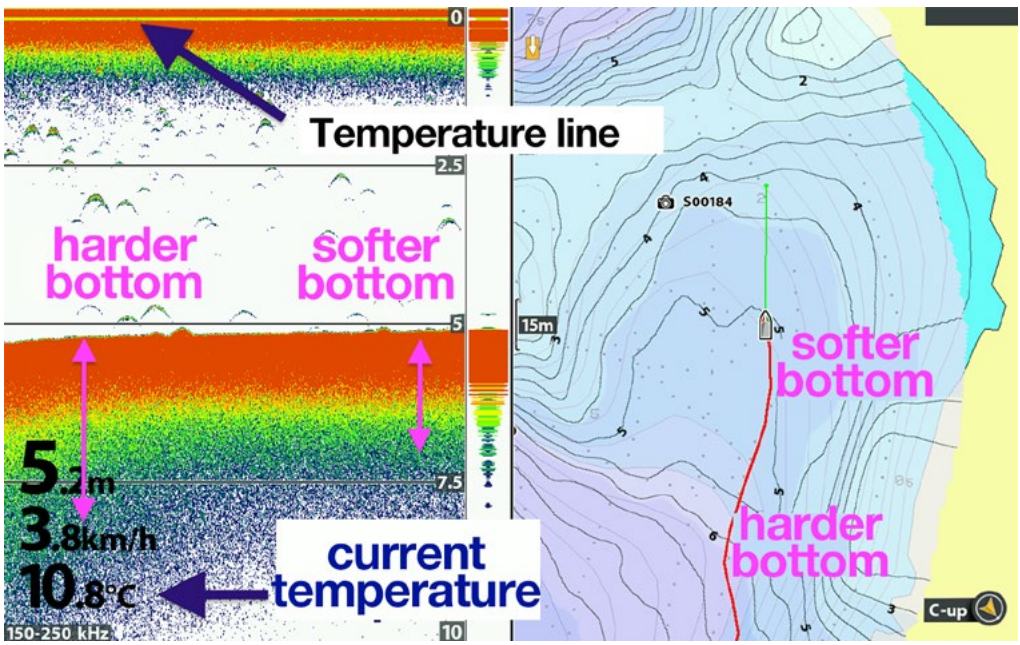


Figure 6.27—Fish finder temperature line and soft bottom

Here we see a typical picture of a 2D fish finder. We can see the temperature line at the top. It shows us the change of the water temperature over time. If you set a slow scroll speed, you can compare the temperature changes of the last minutes. In our example, you can find the current water temperature in the lower left corner.

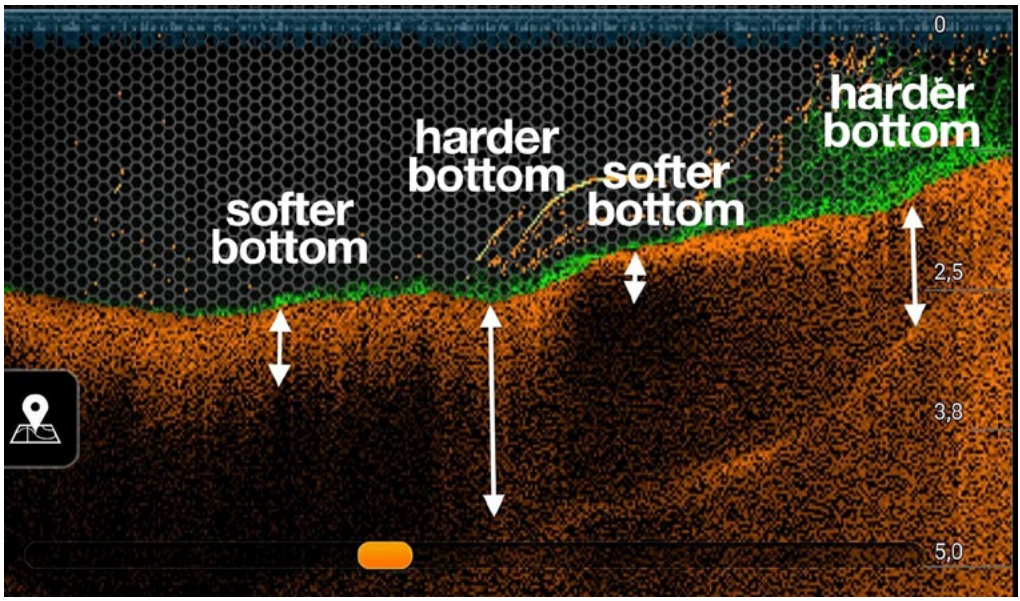


Figure 6.28—Deeper, hard and soft bottom

The structure of the bottom can also aid us in finding the warmest water. The display gives us an indication of how hard or soft the soil is. Soft soil is always a good indicator of turbid water. A muddy, soft bottom will cause the water to turn brown and to heat up quickly. If the bottom is soft, we can see a single, narrow line on the display.

6.6.2 Cold spell

Spring is never stable. Again and again, we experience cold spells. As a result, water temperatures can drop rapidly and slow down the explosive development of life under water. If the water temperature drops, the fish adjust immediately—the pike will bite much less in these conditions.

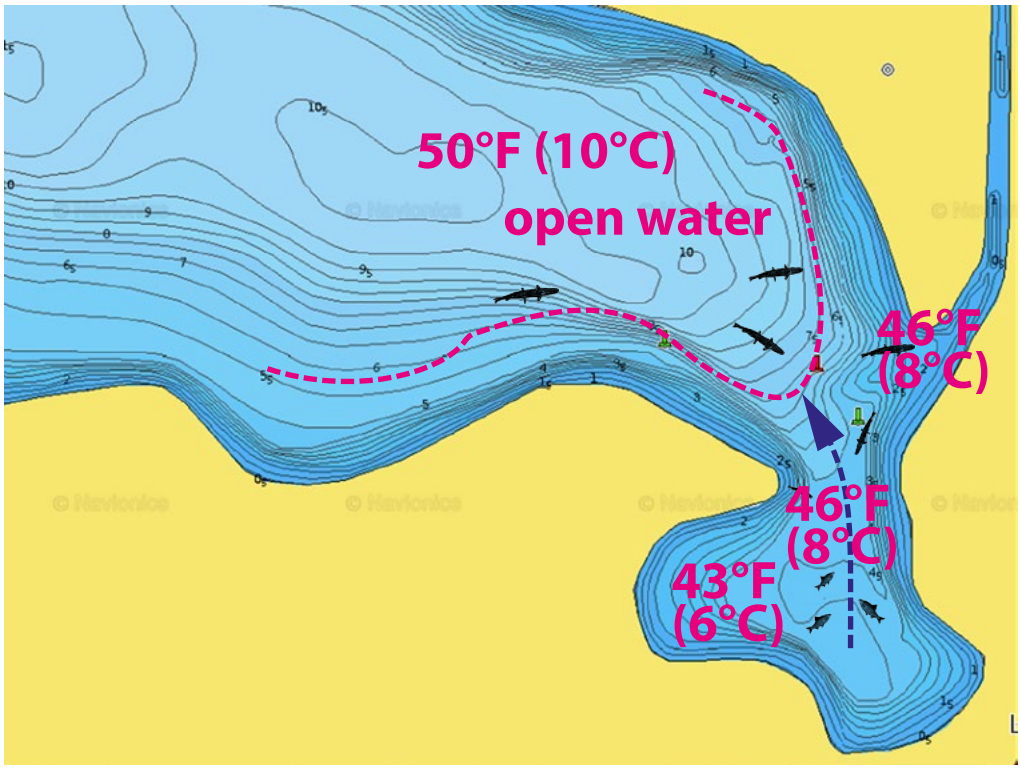


Figure 6.29—Cold spell (fish leave bay)

Cold spells change the temperature in the shallow bays and narrow side arms quickly, causing the fish to move back to the deeper water. Remember, the larger pike are waiting near the edges and are ready to strike as the fish from the shallow waters pass by. Bingo!

If a cold spell lasts for a few days, we should adjust our bait presentation accordingly. Move your baits slowly. The pike's metabolism has adapted again, and everyone is moving a tad slower. It is hard enough to catch pike in falling temperatures, but if you move your bait too fast, the odds of you hooking a pike drop close to zero.

Once the cold front passes, everything changes again. The pike gradually start to feed again. Predators and prey move back towards the shallower areas.

A word on cannibalism: If a prolonged cold front hits at the wrong time, the spawning of many prey fish may get delayed—in the worst case, many larvae die. That can cause cannibalism to erupt among the pike population. If there are not enough prey fish, the pike have to look for alternatives.

6.6.3 Wind in spring

It is normal for short and longer wind periods to occur in spring. Knowing of this plays into our cards because the wind has an influence on the water temperature. Warm winds increase it and cold winds reduce it. However, that is only the case if the wind

persists for several days. Water in itself is a good heat accumulator so that a one-time wind has little effect on the temperature. If it is windy over a period of two to three days, that causes a cooling of the water surface and the different water temperatures mix. Shallow waters are of course more susceptible to wind than deeper water bodies.

Figure 6.30—Quiet bay surrounded by trees

VTherefore, wind-protected bays can be great hotspots for pike fishing. These warmer bays are home to countless prey fish. The wind loses a lot of momentum if it cannot hit the water surface directly. Houses, trees or other large obstacles on the shore protect these bays, attracting prey as well as predators. If you observe the surroundings on the banks, you should be able to estimate quite reliably how a cold or warm wind may affect these bays.

Figure 6.31—Big bay, wind and waves

The size of the shore areas also plays an important factor in how much the winds affect the water temperatures. The wind sweeps across smaller, separate water sections more quickly than over larger water sections. The result is a strong wind-induced current in these spots.

Remember

The wind can be a decisive factor as to whether prey fish and predators reside in a certain spot. It makes sense to analyze the wind patterns before you head out. We use apps such as Windfinder. With these apps, you can analyze the strength and direction of the wind over several days. That should give you a better picture of the situation on the water.

Remember

Spring brings about a lot of changes to the life of pike. While they emerge weak and without appetite from the spawning season, that changes in the course of the following weeks. Food on the banks is as concentrated and abundant as it will never be again throughout the year. The motto is: „all you can eat.“

With growing underwater vegetation, the pike‘s hunting strategy changes. From hunting actively, sometimes over long distances, the pike turn into efficient predators in summer. Protected by edges, vegetation and other structures in the water, lurking becomes their favorite hunting strategy.

These changes in hunger, prey availability, and the pike‘s hunting strategy affect our fishing. To be successful in spring, we need to adapt our baits, bait presentation and actively look for the best hotspots. Spring is an interesting period for pike fishing.

6.7 Summer

Water temperature: 59-70°F (15-21°C)

In summer, the growth of vegetation and many living creatures reaches its peak. The aquatic plants are now almost fully developed and often form a dense thicket under water. Summer is the time of continuity. The days are long. The weather is mostly stable. There are fewer cold fronts, strong winds or storms. Mild breezes dominate the weather. Accordingly, pike become creatures of habit, not changing their behavior often. Depending on the latitude, the summer begins sooner or later. In Germany, summer arrives in the middle/end of June, whereas in Scandinavia, people usually have to wait until July.

6.7.1 Feeding

The pike prefer to be passive during the long days, sometimes hunting and feeding more, other times less. In hunting, the light intensity plays an elementary role for the pike in summer, especially in waters with good visibility. Pike feed at different times depending on the water. In clear waters, pike tend to wait until dusk. Hunting at dusk promises the best odds in these conditions.

During sunset, the pike‘s body is almost indistinguishable in the water. The camouflage gives the pike a decisive advantage. Pike can stalk their prey up to three times closer at dusk than in daylight. Every false attack costs the pike unnecessary energy. The general mood of most pike, especially the larger ones, changes greatly during the course of the summer. In the early summer days, pike still feed actively. That changes with increasing water temperatures. The feeding activity continues to decline as the summer progresses. The feeding phases tend to be short rather than long.

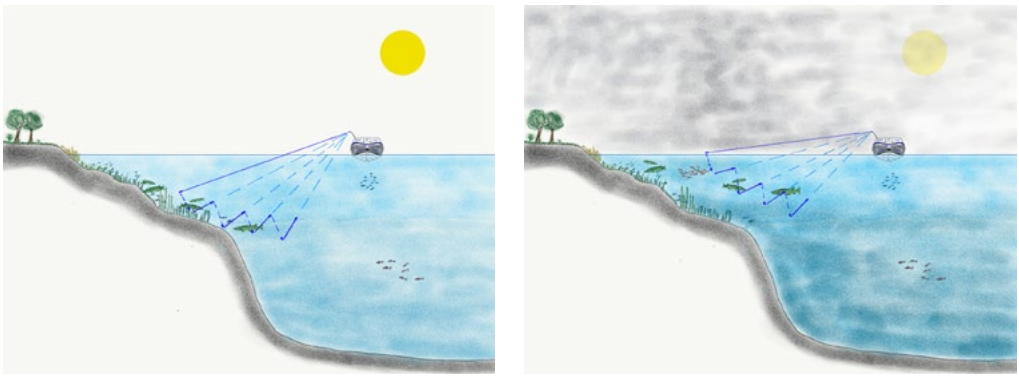


Figure 6.37—Sun and clouds in comparison

However, external factors can irritate the pike. Weather-related changes can activate the pike for hunting. If the sun disappears behind clouds, the light conditions resemble twilight. With cloudy skies, starting at a depth of about 10 feet (3 meters), the light intensity is comparable to conditions at dusk. That change can cause one or the other spontaneous pike attack. Make sure not to miss these opportunities.

6.7.2 Weather change

Everyone should study the changing weather conditions before heading out on a fishing trip. Even though summer is a period of constancy, the weather always changes. If the weather has been stable for a few days, fish tend to not display any unusual behaviors. So before you head out, check whether the weather has been stable for the last 2-4 days. You can consult different weather apps or websites. We use the app Weather Pro. Its air pressure function shows us how stable the weather has been.

With slowly rising air pressure, the weather tends to be better. If the air pressure rises quickly (more than 1 hPa/hour), we might have a weather change, likely with stronger winds, on the horizon. The wind can strongly affect the water. In summer, the sun stands high, and the light can penetrate deep into the water. Waves can break the light and cause sudden darkness under water. That may encourage one or the other pike to feed. Cloudy and often humid weather provides the right light for the pike to hunt, encouraging them sometimes to be active during the day as well. Clouds often provide the necessary stimulus for the pike to feed.

If the air pressure drops, the weather can become uncomfortable. Again, a falling barometer indicates a change in the weather. Usually, it results in the weather getting worse. A sharp drop in air pressure suggests a storm. If the low continues, it becomes cooler, and we will have a harder time fishing for pike.

In turbid waters, pike hunt more often throughout the day. Depending on the turbidity of the water, they are camouflaged well. In these conditions, clouds can have the opposite effect and interrupt the feeding. Once the sun shines again, that hunting conditions improve once more, triggering the pike to hunt again. In sunny weather, pike can easily distinguish the contours of the prey fish, and of course our baits.

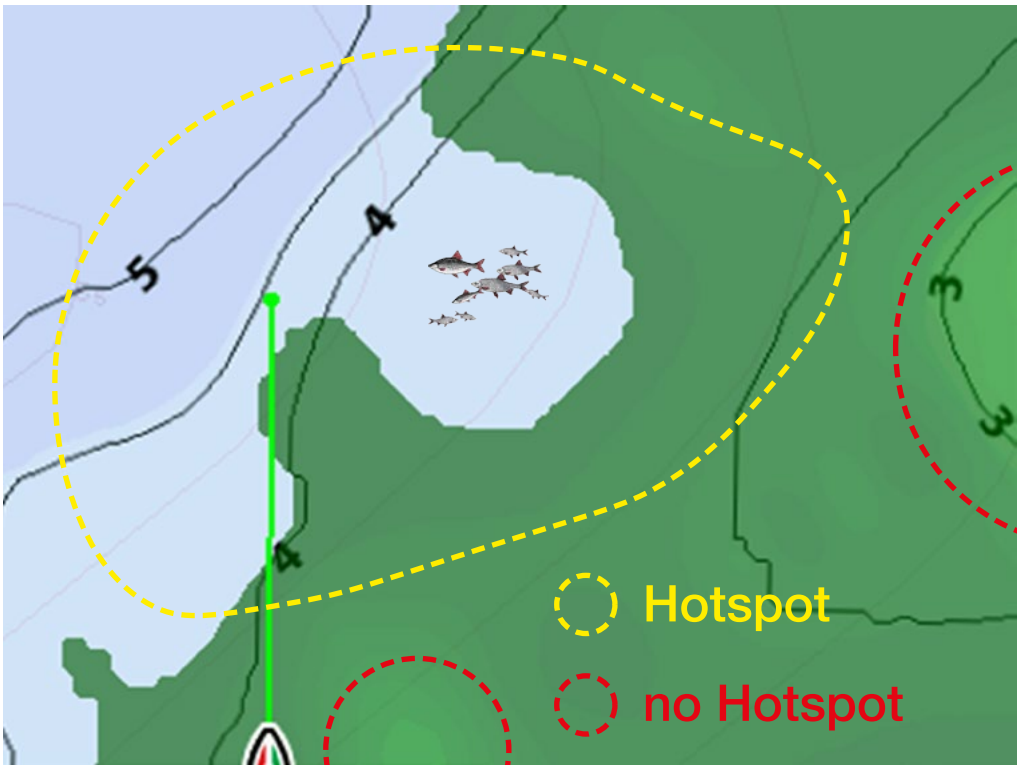


Figure 6.41—Pockets in the vegetation

Pockets that are not overgrown or only slightly overgrown are somewhat good hotspots for pike fishing. Single prey fish or whole shoals might stay here so that the pike can spot them in the free space from cover. On the other hand, dense vegetation that borders on loose structures, are an ideal hotspot. The dense vegetation is home to a lot of prey fish, some of which sometimes visit the open space.

6.7.12 The open water

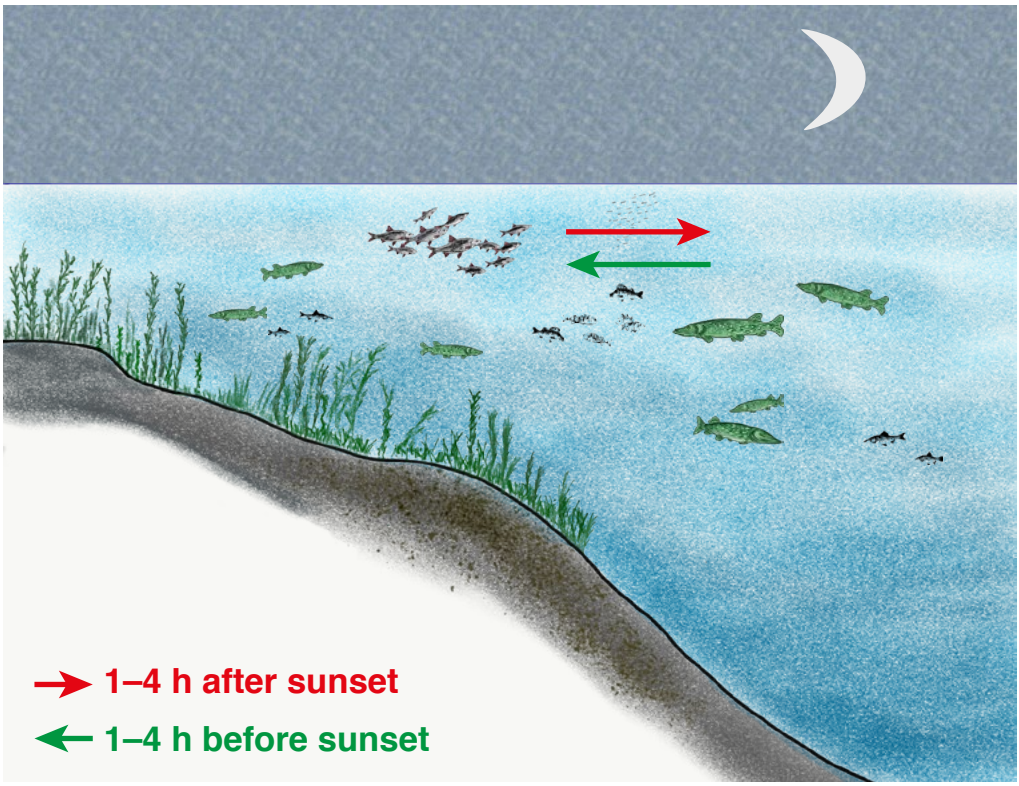


Figure 6.48—Edges, pike and roach at dusk

The reason why pike move to the edges at dusk more often in the summer is that schools of bait move into the open water in the evening. Many roaches, for example, feed on the rising zooplankton in open water at night. The darkness provides cover to reduce the risk of falling victim to predators. Instinctively, the pike move to the edges to await the migrating shoals of prey fish. The deeper we get into summer, the more we can witness this phenomenon. For this reason, larger pike probably migrate further than smaller pike. We can find them in the open water at night since they are no longer exposed to the risk of cannibalism.

At night, pike move the furthest from the shores. Especially the larger pike seem to follow their prey all the way into the open water at night. Depending on the latitude, the nights in Europe can get pretty dark.

Pike can see well in the dark. Like the zander, the pike also has a light-reflecting layer called “tapetum lucidum” in its eyes. That layer does not reflect light as well as for the zander, however, allows the pike to see pretty well in darkness. Dusk, full moon, clear water, and a cloudless sky allow the pike to hunt well at night.

The visibility in open water is often greater than near the shore, where waves and plants cloud the water. For this reason, it may be worth staying on the water for an hour or two longer. But more to the open water than near the shore.

predatory fish. While the perch dominated the open water in 1997, the zander chased them away by 1998. In order not fall prey to the zander, the perch moved to the protective shore area. Here, they were safe from the zander, but the pike suddenly found themselves in a land of milk and honey—perch are much more nutritious than crayfish.

With the perches moving less frequently to the open water, the pike fed more and more perch into August. Only once the perches were too big for the zander, did they relocate once more.

Remember

Prey fish are not in constant supply. Pike must regularly adapt their feeding behaviors. Knowing this should help us to select the right bait. Pike might strike at many different baits, but if you present the most suitable bait for the given context, you can improve your odds significantly.

6.8.2 The temperature and the oxygen

The high outside temperatures cause problems for many fish, including the pike. Small, medium-sized, and large pike all master the hottest temperatures of the year in different ways. Usually, the larger pike have a harder time dealing with high water temperatures than the smaller pike.

As water temperatures continue to rise, the strongly changing oxygen conditions have a great influence on the fish and thus also on the pike during the course of a day.

As already mentioned in chapter 4.4 „Oxygen“ on page 76, partial oxygen deficiency may occur in some water bodies and water sections. That is all the more likely in cloudier or nutrient-rich waters. Fish usually cope well with these tense circumstances, but the adjustments have an impact on their behavior. We have to adapt accordingly.

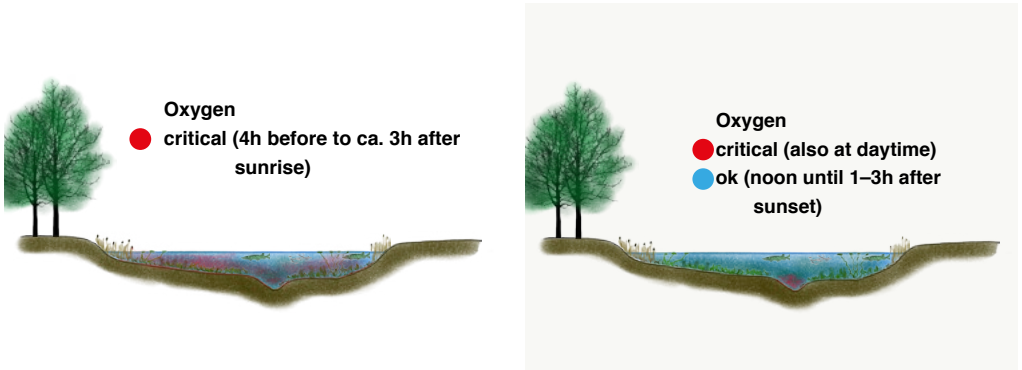


Figure 6.55—Critical and acceptable oxygen concentration in nutrient-rich waters

If the oxygen concentration is low, it often bottoms out shortly before sunrise. After that, it returns to normal until around noon. At noon, many fish start to feed. Feeding peaks in the late afternoon. So if we are fishing the shallow and warm shore areas, we

should head out rather in the afternoon or evening.

Starting at sunset, the available oxygen in the shallow, overgrown shore area is quickly consumed. The oxygen concentration usually bottoms out just before the early morning hours. The fish react to the oxygen deficiency and move towards the open water in the evening. There they can feed on the rising zooplankton at night. In the morning they return to the shore.

The heat is another problem for the large pike. The sun causes the water temperature in many areas to rise so strongly that many pike, especially the larger ones, seek cooler water. These cool areas are in different spots, for example, in the open water, which is becoming increasingly important for large pike.

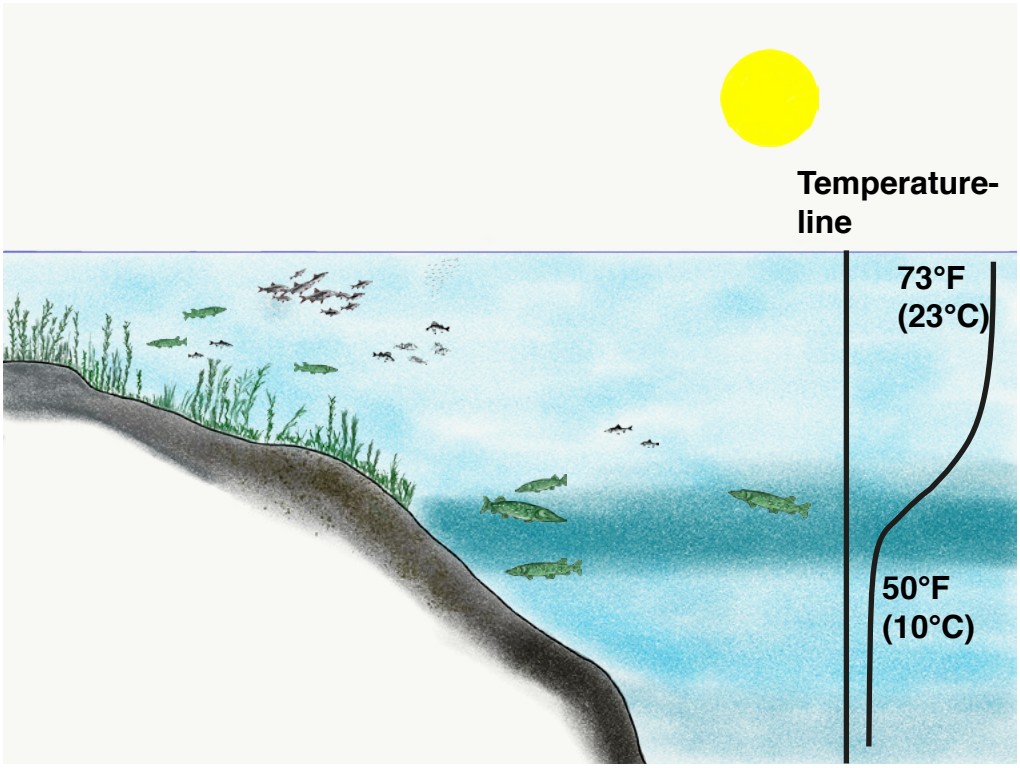


Figure 6.56—Water temperature and thermocline (mesotrophic waters)

In these conditions, pike choose to dive to cooler layers in the water column if possible. In deep mesotrophic waters, pike will likely stay near or in the thermocline.

Chapter 7

Special features of flowing waters

7.2.5 The cross-section of a river

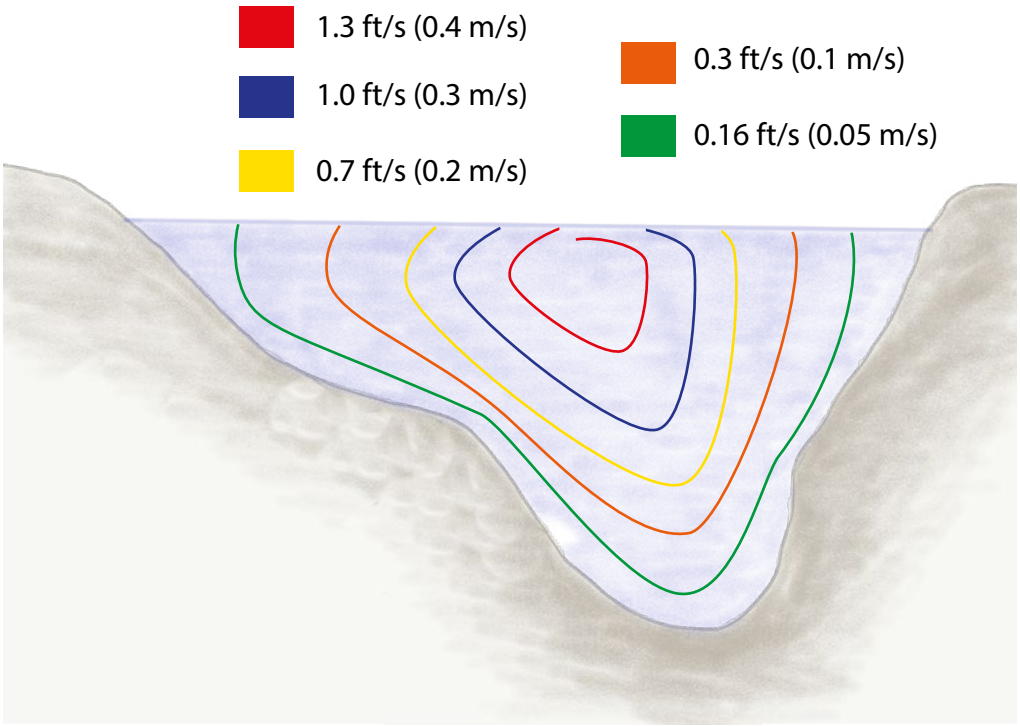


Figure 7.5—Exemplary flow velocities within the river

If we look at the cross-section of the river, we can see the different flow velocities of the water. The flow velocity is not always fastest at the same point. For example, in the middle of the river, the flow velocity is sometimes fastest further down, left or right. The pike generally prefers the low speeds near the bank edges, the obstacles or the bottom. Many prey fish inhabit these spots and the vegetation also finds sufficient support.

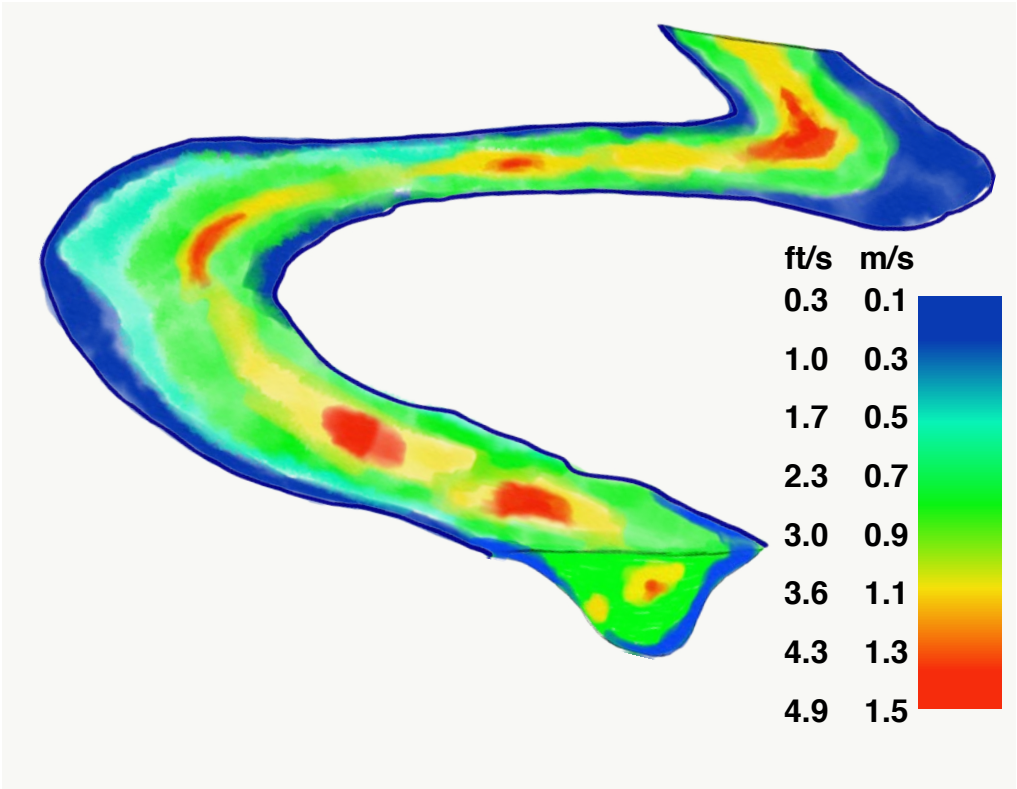


Figure 7.6—Exemplary flow velocities along the river course

We now know that the flow velocity in rivers can change even at short intervals. Figure 7.6 gives us a very good impression of this. The deep blue color indicates the optimal habitat for the pike where they can rest and hunt (about < 1 ft/s (0.3 m/s)). We ourselves were surprised how small this area can be. The shore area is the ultimate hotspot and pike will use these areas primarily for hunting and resting. Of course, pike also swim through sections with stronger currents, whereby the larger pike can do better than the smaller ones. Generally, most pike hunt rarely in a stronger current, making them less susceptible to our baits.

7.4.3 Channels

Figure 7.10—Small channel

Figure 7.11—Large channel

Channels are a special form of flowing water. They are of an artificial origin. Channels connect different waters and have a limited length. The classic division into different fish regions does not exist for channels. Since the river bed is not of a natural origin, the extensive bends of natural river beds are often missing. There are also hardly any flood zones. The purpose of channels is mostly to connect other water bodies.

Channels do not make great habitats for fish. The current is usually stronger compared to natural rivers of the same size due to the straight line and the lack of obstacles. Also, the vegetation is not as abundant. Depending on the size of the channel, pike settle, but the fish stocks are usually small in number.

Bait

Pike that live in channels have to compromise on their food, as fewer prey fish and hiding places are available. Pike therefore inevitably switch to alternative food. Invertebrates such as crabs, leeches or insect larvae take up a much larger share of the menu. Even if they provide the pike with a worse energy supply than fish, the food is sufficient for the pike to survive. However, the alternative diet can have a strong impact on their growth.

If we fish for pike in channels, we should give a little more thought to our bait selection. Fish baits promise the pike a lot of energy. Fish baits that appear as easy prey might help to stimulate the pike. Alternatively, imitations of invertebrates are suitable, too. They should definitely be present in the bait box.

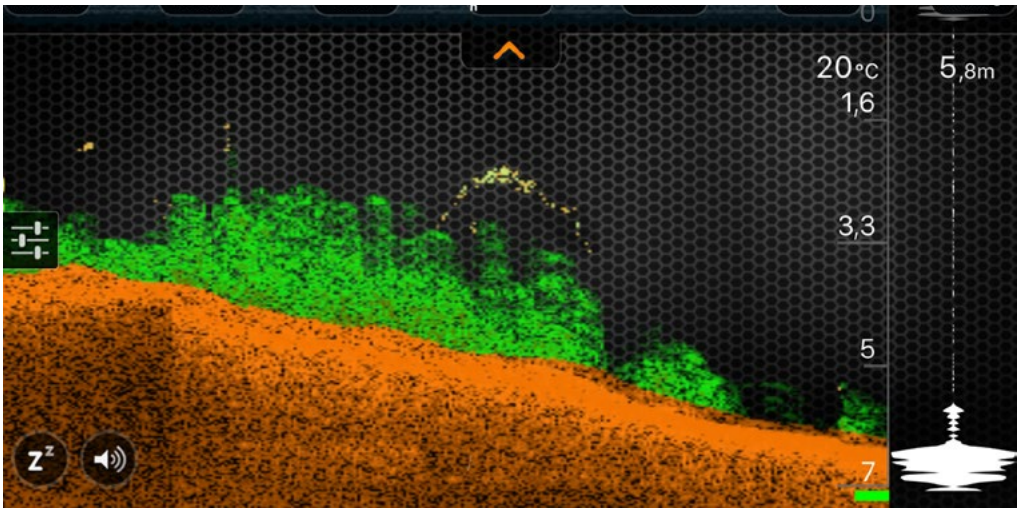


Figure 7.16—Vegetation on a gradual drop-off

For this task, we use a mobile fish finder such as the Deeper. It helps us to map the underwater structure. A mobile fish finder is particularly suitable for mapping out river banks. We simply let the current carry our Deeper for 100-130ft (30-40m). The result is an abundance of information about vegetation, edges, and fish.

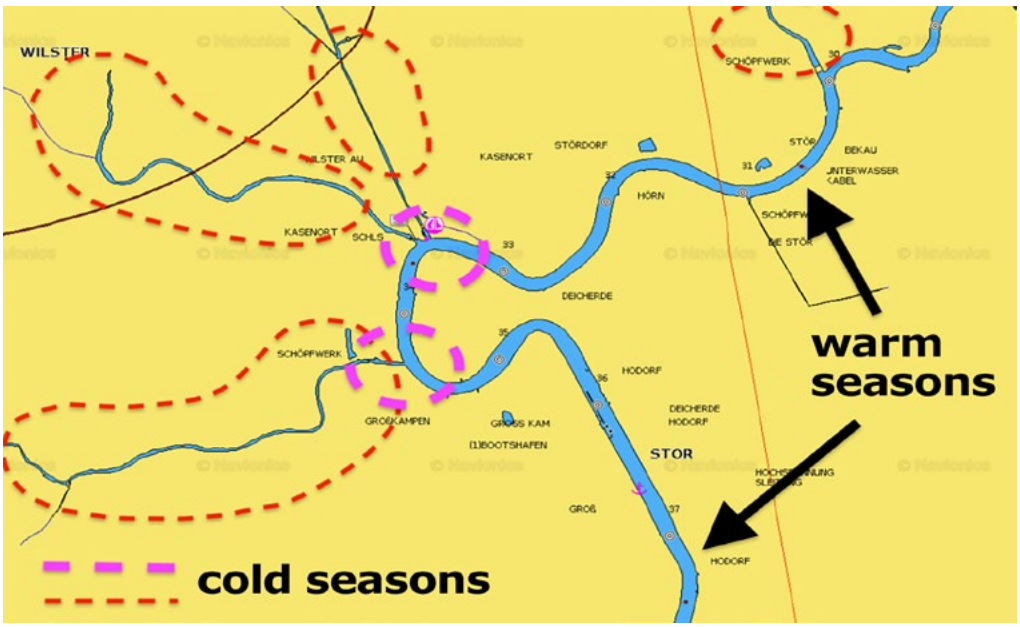
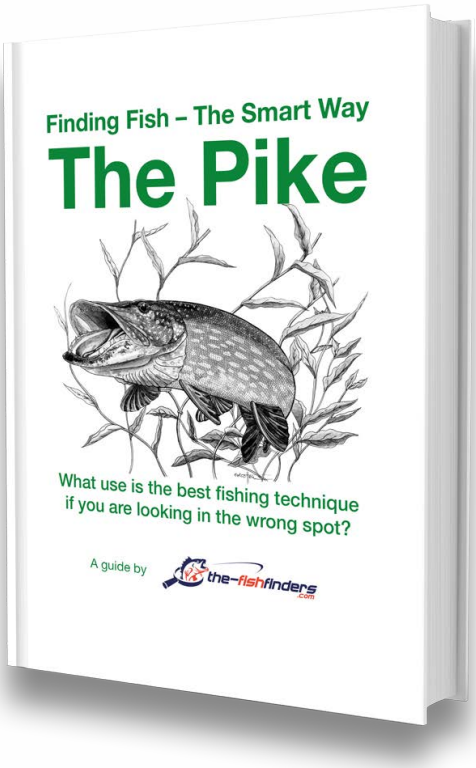


Figure 7.17—Prey and pike in the cold season

In autumn and even more so towards winter, the vegetation is declining. That means that the prey fish leave the main rivers more and more often. The pike follow to feed. We know that pike need little prey at low water temperatures. They can migrate to the


Finding Fish – The Smart Way
The Pike
What use is the best fishing technique
if you are looking in the wrong spot?
A guide by
the-fishfinders
.com

Buy Now