



# A COMPLETE GUIDE TO CAMPFIRE SAFETY



By [Rathwulven Bushcraft](#)

## PROLOGUE

Fire has been of tremendous importance to men for thousands and thousands of years: It keeps us warm in the cold, illuminates the dark of the night, cooks our food and boils our water to sterilise it. Fire has plenty of benefits for outdoor-enthusiasts and even helped primitive man to take another step on the ladder of evolution. And fire certainly gives us comfort, is nice to look at, hypnotises us and could indeed be considered what bushcrafters call the “bush tv”.

As intriguing and useful as fire may be - it also comes with several dangers. Especially among some bushcrafters and survivalists, there is this idea that fire “is just part of the deal”. As more and more people engage in adventures out there in the wild, there will inevitably be more and more people ready to start fires out in nature. This is why I want to share this free ebook with you. On the one hand, I wish to help you personally to make your trips safer and more enjoyable. On the other hand, I want to help you to develop your outdoor skills for your own as well as for Mother Nature’s sake.

Please note that this book does not intend to judge you personally. It also does not aim at categorising readers in terms of “good” and “bad”. The book also does not intend to make a statement whether firemaking is “right” or “wrong”. Also there is no intention to debate paragraphs and laws, not to speak of advocating an idea like thinking that all it takes is just not being caught in flagranti.

Instead I am aiming at putting things in an objective and constructive perspective. We need to learn about fire safety and preventive measures in order to be able to work reasonably and safely so we can fully enjoy the outdoors and live our passion for trekking, camping, bushcraft and all those other outdoor-activities.

In the end, this is all about understanding that all of us are **part of** nature but never **masters to** nature. You are - just like me - an ambassador for our community and our way of life. If I mess up, all outdoor-enthusiasts (including you) will earn a bad reputation and vice versa.

If we all work together and are willing to learn, we will all earn more trust and understanding - both personally as for entire communities such as the bushcraft-, survival- or trekking-community.

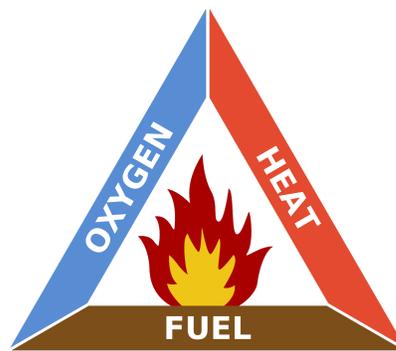
I want to thank you for downloading this book and for doing your part in this matter - wishing you all the fun and joy in the outdoors!

Ralf from Rathwulven Bushcraft

# WHAT IS FIRE?

In order to understand how to take proper preventive measures against fire hazards, we first need to understand what fire is and how it comes into being.

Simplified, the word “fire” describes the result of a chemical process (burning) generating flames while emitting light and heat. In order for a flame (and hence: fire) to come into being, three components are needed: A fuel substance, oxygen and heat. Let’s look at the so called “combustion triangle”:



An ignition happens at any time these three components reach a certain mixture ratio. It is not possible to create a fire without one of these three components - removing one of the components from the triangle would result in extinguishing a flame or fire. As an example, think of extinguishing fire with water: The water does not “drown” the flame but rather lowers the overall temperature of the fuel substance - so by removing the component “heat” from the triangle a fire can not be sustained. A fire blanket, on the other hand, would remove the component “oxygen” from the combustion triangle and hence “suffocate” the flame. The same principle applies for a CO<sub>2</sub>-extinguisher.

Please take into account that both oxygen and fuel are all around us, in literally any given circumstance. We must understand that, in consequence, it only takes us to add some additional heat or temperature to create a flame and hence a potentially harmful fire. Heat can be generated in myriad ways - for example by means of friction (bow drill), pressure (fire piston), sparks (ferro rod), embers or even sunlight: Think of using a magnifying glass to bundle light rays. That said, even a carelessly placed plastic bottle filled with water could turn into an improvised lense and hence a fire starting device. So always act with caution!

## QUESTIONS AND CONTEXT

Given our earlier findings, there are a couple of questions we must ask ourselves before we go into the outdoors and start a campfire:

1. Is the intended fire a necessity in circumstance X or can it be avoided?
2. Am I able to build a fire at a size that is proportional to its task?
3. Am I able to protect my environment and my surroundings?
4. What is the current fire hazard stage and weather situation in my area?

Thinking about questions of that nature quickly makes us realise that we need to be mindful, alert and considerate if we want to get a campfire going. First of all, fires should only be started if they are a genuine and true necessity - never "just for fun". Furthermore preventive and protective measures must be taken at any time we consider starting a fire. Surroundings need to be carefully observed and understood and campfires must never be left unattended.

Also take into consideration that all fires are (potentially) hazardous, also those we usually do label as "closed" or "contained" fires. Fire can never be considered "safe" as flames always have the potential to get out of control, making a fire unmanageable and hence turning it into a threat for both you and your environment - not to speak of the wildlife and people living in the area you are at. This information also does apply to cooking devices like gas burners or hobo stoves, just have a look at the following comparison:

Imagine lighting up a piece of birch bark or a bird nest with a match or just a flint striker. Doing so, a small flame is deliberately generated to feed on fuel in order to grow and develop into a bigger fire. Such flames are about the same size as the tiny blue flames emitted by your gas stove - so if the first type of flame is understood as a trigger for a bigger fire, the latter cannot be considered less dangerous, right? If we stay completely honest here, both flames are equally capable of initiating a bigger and potentially harmful fire. There is no reason in operating on two different standards here.

That said, also modern devices like a hobo stove or a gas cooker could accidentally be pushed over. This could set fire to the ground, creating an expanding ring of fire. Even if the ground simply starts to smolder, that smoldering can expand until it hits an object dry, fluffy and combustible enough to ignite a fire. Just think of the combustion triangle again. Tiny embers continuing to smolder could not be recognised and hence remain uncontrolled sources for forest fires once they are exposed to a certain amount of fuel and oxygen..

As a result, both a proper assessment of your situation and surroundings as well as being reasonable and moderate are of the essence at any given time and location.

## BE MINDFUL - PREVENT HAZARDS

Before I will give you a couple of handy and practical tips on how to improve your fire safety skills, I wish to tell you a little bit about mindfulness and its importance during firemaking.

What is mindfulness?

**Mindfulness is the basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us.**

In other words: Mindfulness is the opposite of anything that comes close to a lack of attention, to distraction, stress or even panic. Mindfulness also incorporates the principles of awareness and self-criticism, the ability and will to learn and improve, the capacity to be rational and curious as well as being able to take responsibility for one's own actions.

I would encourage you to practise mindfulness in every possible aspect of your own life as it does not only help you in regards to firemaking, but also comes with many benefits for your own psyche and physical health as well as it helps you to grow as a person.

That said, the aware and present mind does do the effort to keep on learning about techniques and principles enabling a person to create safer and eco-friendlier fires. As a bonus, you will also be able to inspire others to do their part and make a reasonable and trustworthy impression on park rangers, landowners or other authorities that might want to keep us from starting a campfire in location X. In other words: Mindfulness creates trust, and being perceived as a trustworthy individual creates more opportunities for us - for example if we are asking the authorities to get permission for starting a campfire. We already have the "No!" but could always get the "Yes."

So a simple principle like mindfulness will, on the long run, enable us to earn respect for our proper behaviour. As a consequence, we automatically turn into better role models for fellow outdoor-enthusiasts and more credible and convincing ambassadors for our community of hikers, (wild)campers, scouts, bushcrafters and survivalists.

And the best thing about being mindful: You can easily start being mindful right from now and onwards!

But enough about this, let's have a look at specific tips and guidelines on a practical level.

## RATHWULVEN'S 12 STEP GUIDELINE

1. Check your local laws and get informed about the safety policy of campground, forest administration or park.
2. Learn about your current, local weather situation and fire hazard level.
3. Try not to leave an ecological footprint. Use fire pits already established on location.
4. Check your surroundings in 3D: Make sure the space around you features no flammable plants or structures, check what's over your head and anticipate shallow roots growing underneath the ground surface. Also check if the soil is flammable.
5. Make sure there is no vegetation in a radius of 5m (15ft) around your fire pit. Clear the area around your fire pit for at least a radius of 1m (3ft). Build your base on a rock or sandy ground if possible.
6. Always pick a wind still spot to make sure spark transmission is inhibited.
7. Keep your fire manageable at all times. Use a hobo stove if possible. Never leave your fire unattended.
8. Always build a decent stone ring and keep sufficient extinguishing water at hand.
9. Keep fuel and flammable gear on a safe distance, preferably about at least 1m from the fireplace.
10. Let all fuel burn out to a full extent, also before extinguishing. Never leave embers behind.
11. When running out of water, mix embers with dirt and stir to diversify the heat. Never cover embers fully or even bury them.
12. Check if all is cold to the touch, starting with your palm, followed by the back of your hand and then by fully touching the remaining coals.

Great job! You have now made sure that your fire has been fully extinguished. Please do not forget to clean up your campfire spot - leave your campsite behind as you have found it. Leave no trace!

## ADDITIONAL INFO

Fires do also disturb the wildlife, please keep that in mind. Keeping a campfire going throughout the evening will lead to animals like deer postponing their activities deeper into the night. This is not only upsetting hunters, but also the animals as such. By avoiding fires whenever we can, we intrinsically pay respect to nature.

Smoke and fumes raised by fires are intoxicating. So for our own health we should try to avoid big and smoky fires whenever we can. Smoke also causes air pollution - keeping campfires to a minimum therefore helps to keep the level of pollution low.

Smoldering embers, leaves or roots can do so for days and weeks, depending on the local weather situation. It happened before that only days after a trip, subterranean smoldering fires hit a combustible tree stump or so and caused raging forest fires. If you want to see some impressive pictures, simply use a search engine and look up "Jochberg forest fire" (or "Jochberg Waldbrand" in German). The aerial photographs you will find depict dozens of tiny fire sources on the Jochberg mountain range caused by a single campfire established about a week earlier. The incident as such destroyed hundreds of hectares of vegetation and habitat for animals.

## CONCLUSION

We are not able to fully control or even govern the behaviour of fire - but we can manage it.

Therefore a fire hazard never fully disappears - but it can certainly be reduced.

If we do show proper conduct, we factually do reduce the risks.

Once the risks are reduced to an absolute minimum, we have time to lay back.

And once we are laid back, we can enjoy the beauty of nature. :-)

## PERORATION

We all wish to enjoy the outdoors and of course we also may do so. In order to keep it that way, everyone needs to do his or her part in protecting nature. What sounds like common sense is, unfortunately, all too often not applied to everyday reality. Modern people do show different types of behaviours and conduct which could be addressed in depth and would fill yet another book - just think of all the myriad issues caused by man such as pollution, littering, production and use of plastic and more.

It is no shame to know less than others - but in the end it all boils down to learning something new every day. If we take this to our hearts and keep on working on ourselves, everyone of us can and will make a tremendous difference.

In case you want to learn more about the outdoors or bushcraft, please feel free to check out the Rathwulven Bushcraft Facebook page and YouTube channel. All information published there is accessible for free and might help you to get some new insights and perspectives. You cannot lose anything by subscribing and following the pages - so here are the links:

[Link to the Rathwulven Bushcraft Instagram page](#)

[Link to the Rathwulven Bushcraft YouTube channel](#)

[Link to the Rathwulven Bushcraft Facebook page](#)

If you enjoyed reading the book and if you could take something from that, please let me know via [rathwulvenbushcraft@gmail.com](mailto:rathwulvenbushcraft@gmail.com) or via a comment on one of the portals mentioned above. If you want to give something back, feel free to subscribe and to follow. I do appreciate every subscription.

Enough talk - time to go outdoors again!

Enjoy nature, stay safe and have a good one!

Ralf