

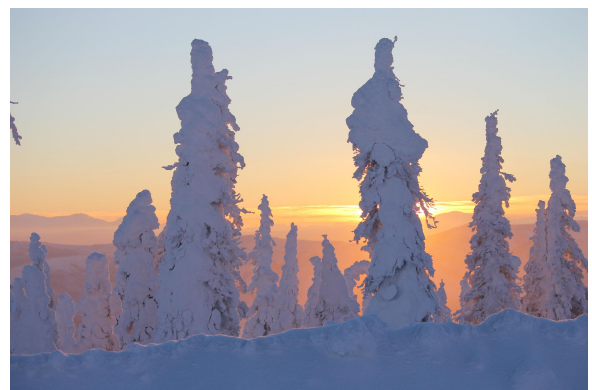
Arctic Fires

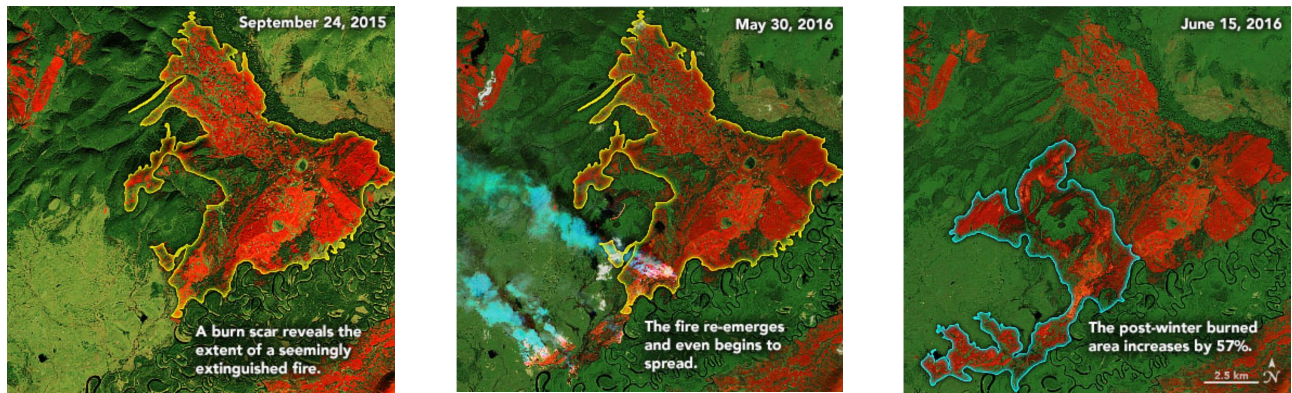


The Arctic Circle

Scientists like Rebecca Scholten from Vrije University Amsterdam in the Netherlands studied ecosystems near the Arctic Circle (Scholten, 2021).

They noticed an odd pattern that they had not seen before. “Some years, new fires were starting very close to the previous year’s fire,” Scholten explains. This is unusual, since fires in this region are usually started by random lightning or human activity. The new observation prompted these researchers to wonder how fires were happening so close to one another. They started by reading through firefighter reports from previous years. Then they compared these reports with satellite images of Alaska and northern Canada from 2002 to 2018. They looked for evidence of fires that began close to fire burn scars left the year before.





The images use different colors to emphasize hot spots, actively burning fires, and burned vegetation (brown) from unburned vegetation (green).

Scientists noticed patterns:

- New fires burning close to burn scars tend to happen **earlier in the season** than other fires.
- Even though these fires are happening in very cold places, they happen more often when there are **warmer-than-normal summers**.
- Fire frequency, or how many fires are occurring each year, is **higher** now than it has been since these forests formed 3,000 years ago and potentially higher than at any point in the last 10,000 years.

Scientists decided to call these fires **overwinter**, **holdover**, or **zombie** fires because some of these fires seem not to die. They are alarmed at the increase in these types of fires near the Arctic Circle in North America and Russia.

References

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