Buckwheat cultivation in Europe possibly started thousands of years earlier than commonly thought

The notion is widespread that buckwheat (*Fagopyrum*) first arrived in Europe in the Late Medieval through trade with the Middle East. Yet, there are numerous finds of pollen and seeds of much earlier time. A research team from the State Museum of Natural History Karlsruhe and Greifswald University (Greifswald Mire Centre) studied these finds and conclude that it is very likely that buckwheat was present already in Prehistoric times. These finds were recently published in the scientific journal "Palaeogeography, Palaeoclimatology, Palaeoecology".

First author Pim de Klerk explains: "Pollen produced by plants can be preserved in peatland or lake deposits for thousands of years. If we study this pollen, we can draw conclusions on which plants were present in the past. We reviewed available records for pollen of buckwheat and found that it was present in Europe already thousands of years ago, long before the Late Medieval."

Until now, finds of early buckwheat pollen were treated as incidental. The common opinion that buckwheat did not occur in Europe before the Late Medieval in some cases even suppressed publication of early finds. By reviewing publications and digital databases, and through personal contact with numerous colleagues, the research team could show that buckwheat pollen occurred before the Late Medieval at almost 250 locations across Europe.

Buckwheat was first cultivated in southwestern China or Tibet, perhaps as early as 6000 years ago. From this region the crop was exported along the ancient trade routes known as "silk roads". Buckwheat may have been introduced by the steady trade that had developed between the Far and Middle East and Europe already around 4000 years ago – the beginning of the Bronze Age. Prehistoric Europeans may have grown buckwheat crops up to 3500 years earlier than hitherto assumed.

According to Pim de Klerk: "Buckwheat produces only few pollen grains. It is rare in the European pollen record. Many scientists regard such low values as insignificant, and up till now nobody has really given the many finds much attention. But many low values do make a strong argument and we think that buckwheat was growing in Europe in prehistoric times. Most likely it was simply growing as a weed. If it was cultivated, this was on a small scale only. The crop indeed did not become popular before the Late Medieval."

We expect that future pollen research will find more evidence of the early presence of buckwheat in Europe.

The paper:

Pim de Klerk, John Couwenberg & Hans Joosten (2015): Pollen and macrofossils attributable to *Fagopyrum* in western Eurasia prior to the late Medieval: an intercontinental mystery. *Palaeogeography, Palaeoclimatology, Palaeoecology* 440: 1-21.

Available at: http://www.sciencedirect.com/science/article/pii/S0031018215004605

https://www.youtube.com/watch?v=ykYuCwUoWlo&ab

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