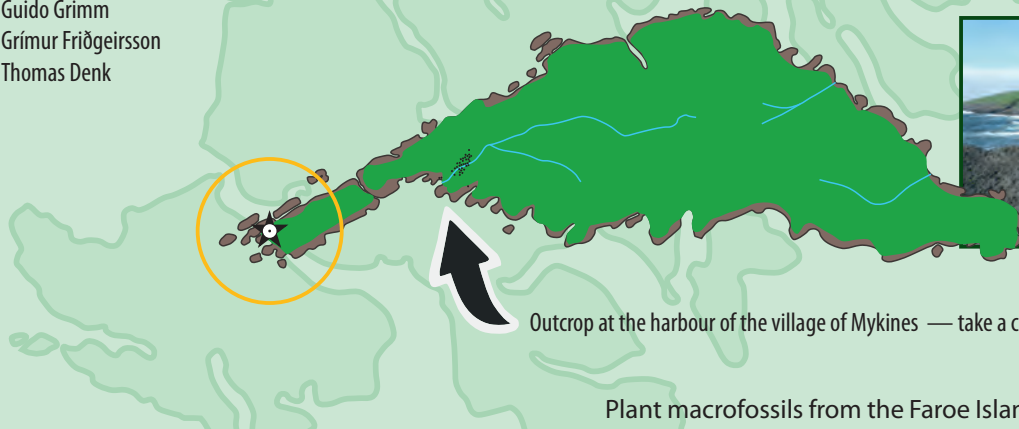


# First *Ginkgo*

## leaf fossils from the Faroe Islands

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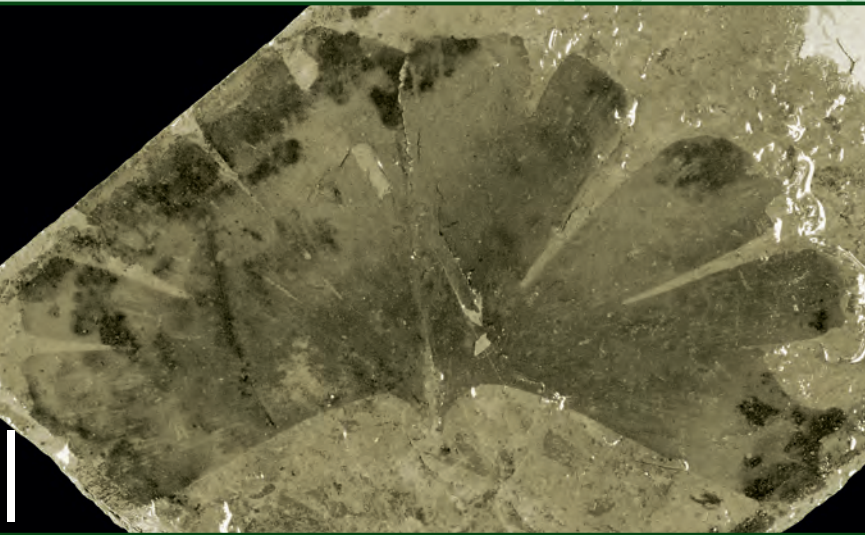
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Outcrop at the harbour of the village of Mykines — take a closer look:

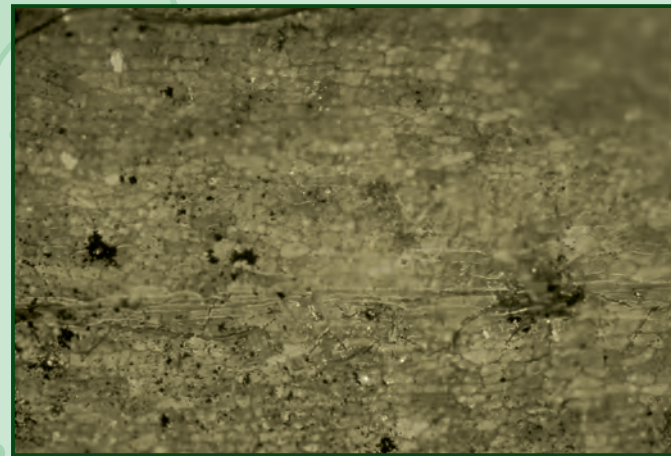


Plant macrofossils from the Faroe Islands are very rare. Until now, the only macrofossil remains ever described from the archipelago were obtained from Paleocene sediments on Mykines, the westernmost island of the archipelago, and comprise a few fragmentary leafy short shoots assigned to *Metasequoia*. Recent fieldwork and extensive collecting in June 2013 resulted in multiple new discoveries of both angiosperm and gymnosperm remains. Among the findings were also a few complete leaves and several leaf fragments attributable to the genus *Ginkgo*.

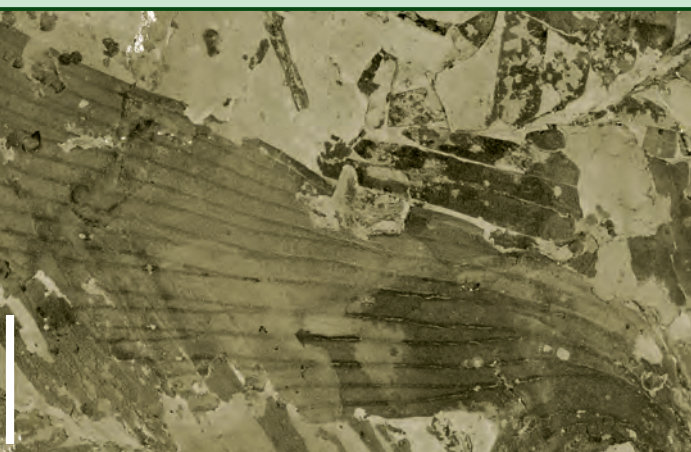


Complete *Ginkgo* leaf, note the emarginate lobe apices.

The leaves are preserved as filmy compressions on very fragile and quickly degrading/weathering rock specimens yielding brittle cuticle fragments. The petiolate leaves are up to 10 cm wide, deeply dissected into several lobes arranged in two orders, lobe apices are emarginate and the lower leaf margin is recurved/divergent forming a deep sinus at the base. *In situ* epi-fluorescence microscopy visualised characters of the epidermal anatomy of the leaves, whereas the cuticles appeared to be too brittle to survive standard maceration techniques.



Fluorescence image of the cuticle of the *Ginkgo* leaf.



Detail of a *Ginkgo* leaf fragment depicting the venation.

The epidermal anatomy of the *Ginkgo* leaves from the Faroe Islands approaches that of *Ginkgo spitsbergensis* from the Paleocene of the Basilika Mountain, Spitsbergen, Svalbard. The macromorphology is different from any known early Paleogene *Ginkgo* leaves from adjacent regions such as e.g. *Ginkgo gardneri* (Paleocene, Isle of Mull, Scotland), *Ginkgo adiantoides* (Paleocene to middle Eocene, Greenland) and *Ginkgo spitsbergensis*. The latter differs from the Faroe leaves merely by its less to not dissected upper leaf margin. *Ginkgo dissecta* from the Eocene of British Columbia, Canada, has a leaf morphology that is similar to the *Ginkgo* leaves from the Faroe Islands, but the leaf is much deeper incised and lobe apices are bluntly rounded instead of emarginate. Given the variability of modern *Ginkgo biloba* leaves, it can not be excluded that the Faroe *Ginkgo* leaves belong to one of the named species. Further in-depth studies are necessary to reveal the identity of the *Ginkgo* leaves from the Faroe Islands.