The ferns and their relatives (lycophytes) living today give us a glimpse of what the earth’s vegetation looked like hundreds of millions of years ago when they were the dominant plants. Found in all but the coldest and driest environments, there are about 12,000 species of ferns and lycophytes worldwide, the third most numerous plant group after seed plants and bryophytes (mosses, liverworts, hornworts). This poster depicts 31 of the 110 types of ferns and lycophytes found in Illinois. Native ferns are important ecological components, and they can also be used for ornamentation, landscaping, fertilizer and food. Moreover, these beautiful and curious plants provide excellent subjects for botanical education. The fascinating ferns are part of Illinois’ wonderful natural heritage!

This tree shows a current concept of the evolutionary relationships among Illinois ferns (green) and lycophytes (yellow) families (modified from Smith et al. 2006). Diplazium, Selaginella, and hosts are members of an older, branching group called lycophytes. Although sometimes called “fern allies,” they are only distantly related to ferns. In contrast, Lycopodium, once considered distinct, is indeed a fern! These relatively new concepts come from sperm structure and DNA data.

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Text by: Daniel Nickrent, Southern Illinois University Carbondale
Peter Pelser, University of Canterbury, New Zealand
Robbin Moran, New York Botanical Garden
John Taft, Illinois Natural History Survey

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Ferns

cortex, rhizome, and root system

sori – a spore case that is produced in an open, slotted area

The fronds have separate sterile and fertile pinnae, an adaptation that allows the fern to reproduce both sexually and asexually. The spores are produced in the sori, which are located on the underside of the fronds. The spores are dispersed by wind or water, and can germinate to form a new fern. The ferns that are native to Illinois are well adapted to the state's diverse habitats, including forests, wetlands, and meadows. The Illinois Department of Natural Resources provides additional information and resources about ferns in Illinois.

The Illinois Natural History Survey (INHS) is a research unit of the University of Illinois at Urbana-Champaign. It is dedicated to the study of the natural history of Illinois and the surrounding region.

The Illinois Natural History Survey has a long history of collecting and preserving fern specimens. The INHS collection includes thousands of specimens that are used for research, education, and outreach. The collection is available for study by researchers, educators, and the general public.

The INHS collection is housed in the John A. Logan Natural History Building at the University of Illinois at Urbana-Champaign. The collection is open to the public and is available for research.

The INHS collection is also available online through the INHS Digital Library. The digital library provides access to the entire collection, including images, descriptions, and other information.

The INHS collection is a valuable resource for researchers, educators, and the general public. It is a testament to the importance of ferns in the natural history of Illinois and the surrounding region.

The INHS collection is also an important part of the Illinois Natural Heritage Network (INHN). The INHN is a network of natural history surveys and other organizations that work together to preserve and protect the natural heritage of Illinois.

The INHS collection is a key part of the INHN, and is an important resource for researchers, educators, and the general public. It is a testament to the importance of ferns in the natural history of Illinois and the surrounding region.