Phlebodium pseudoaureum in a living room

Sub-tropical ferns in a modern conservatory

Tropical epiphytic ferns in a heated greenhouse

The British Pteridological Society
For Fern Enthusiasts

Further information is obtainable from:
www.ebps.org.uk

Charity No. 1092399
Patron: HRH The Prince of Wales
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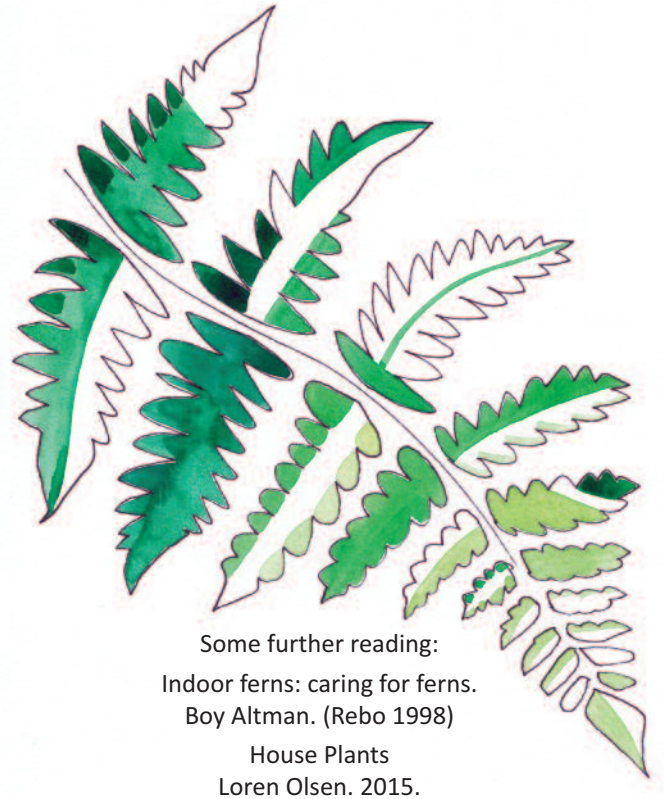
Cromwell Road, London SW7 5BD



Some further reading:

Indoor ferns: caring for ferns.
Boy Altman. (Rebo 1998)

House Plants
Loren Olsen. 2015.

Gardening with Ferns
Martin Rickard (David and Charles)

From Timber Press:

Fern Grower's Manual
Barbara Hoshizaki and Robbin Moran

The Plant Lover's Guide to Ferns
Richie Stefan and Sue Olsen

The BPS would like to thank the Cambridge University Botanical Gardens for their help with the indoor ferns

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125th Anniversary 1891-2016

Growing Ferns Indoors

RHS Chelsea Flower Show 2016

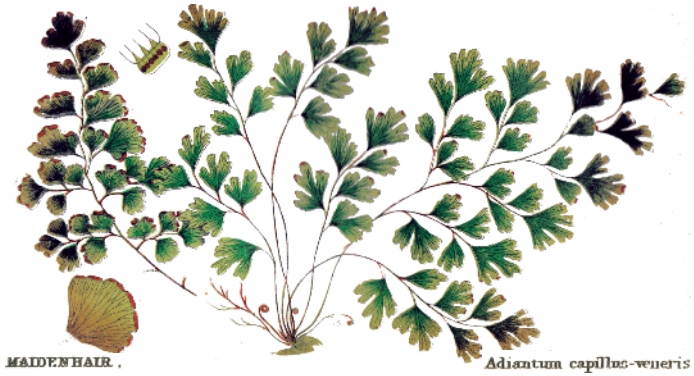
Growing Ferns Indoors

Ferns that will grow in domestic living rooms, conservatories and glasshouses can provide all-year interest and enjoyment. Some ferns that will tolerate these environments are listed below but there are many more to be found in specialist books on fern culture. Several of these ferns are widely available in garden centres and even supermarkets. However, more interesting and challenging ferns can be ordered from specialist fern suppliers. Cultivars are variations on the natural plant.

Ferns for frost-free porches
Cheilanthes species, the xeric, cloak or lip ferns
Dicksonia antarctica, the Tasmanian tree fern
Many ferns from Australia and New Zealand

Ferns for domestic living rooms and conservatories
Hanging ferns:
Goniophlebium subauriculatum, the jointed polypody
Platycerium bifurcatum, the stagshorn fern
Standing ferns:
Adiantum species, maidenhair ferns and many cultivars
Asplenium nidus, the bird's-nest fern
Asplenium species, of which there are many
Phlebodium aureum, the golden polypody
Nephrolepis exaltata, the Boston fern and many cultivars

Ferns for heated glasshouses
There are a great many ferns in this category including:
Cyathea species, tree ferns especially:
Cyathea cooperi, Cooper's tree-fern
Cyathea medullaris, the black tree-fern
Cyathea tomentosissima, the teddy-bear tree-fern
Lygodium japonicum, the Japanese climbing fern
Tropical epiphytic ferns that grow on trees or rocks
And many others!



Growing ferns in the home can be both relaxing and beneficial as the soft green foliage is pleasing to the eye and may also help in purifying air. It would appear that some ferns and their root-associated micro-organisms can biodegrade air and water pollutants.

Growing ferns in living rooms.

Domestic living rooms cannot have high humidity levels but a moist microenvironment can be created around a plant by standing the pot on a surface of wet gravel or bark. The maidenhair ferns (*Adiantum* species) and Boston ferns, *Nephrolepis exaltata*, with many fancy cultivars, often do well indoors. Some subtropical epiphytic (climbing) ferns, such as the polypodies *Goniophlebium subauriculatum*, and *Phlebodium pseudoaureum*, can flourish indoors as they naturally grow in trees and on rocks with less available water and increased air movement causing lower humidity.

Ferns in porches

Many frost-sensitive ferns will survive the winter in unheated porches provided that they are kept damp, pest-free and are returned to the garden when temperatures begin to rise. The xeric ferns, come from low humidity, rocky areas. Most have an attractive silvery leaf surface that is designed to reduced evaporation with a thick, waxy surface or a coating of heat-reflective scales. The most commonly seen xeric fern in garden centres is *Cheilanthes tomentosa,* the woolly lip fern, which will grow well outside in the summer but requires protection from rain in the winter to avoid rot.
Tree-ferns (*Dicksonia* and *Cyathea* families) also do well in a bright frost-free environment over winter although they may be too large for the average porch!

Growing ferns in conservatories and glasshouses

Conservatories often have several functions and may be used as a sitting or dining area. Humidity levels above 60% relative humidity (RH) and temperatures above 20-22C can be uncomfortable for humans. Ferns that can be grown in multi-functional conservatories are those subtropical ferns that require protection from low temperatures but not high humidity levels. Attractive displays can be created with members of the *Asplenium* family such as *Asplenium nidus*, the bird's-nest fern, maidenhair ferns (*Adiantum* family), staghorn ferns, *Platycerium bifurcatum*, and many others available from garden centres and specialist suppliers.
Glasshouses for tender ferns may require no more than frost-guard heaters to ward-off temperatures below 5C, although many tender ferns fare better if the minimum winter temperature is 10C.

Growing humid and tropical ferns

Glasshouses that have the sole purpose of growing plants offer the most scope for growing humid and tropical ferns. Humidity levels can be controlled with water trays, wet floors, ultrasonic humidifies and pressurised misters. Humidity levels of 60%RH is the minimum to achieve whilst some tropical ferns require levels of 80%-90%RH.
Heat can be provided by methods such as hot water radiators, under-floor heating and fan heaters. What temperature is needed depends on the requirement of the plants. Reference books on fern culture and flora, defining the characteristics and altitude of the ferns natural habitat, will determine minimum day and night temperatures. Some ferns (such as tree-ferns) require that temperatures are lower at night than during the day.
A problem can be cooling the glasshouse in the summer, when temperatures can rise to high levels very quickly if in direct sun. Ideally, glasshouses should have some shading from trees or buildings. Otherwise, shading will have to be provided by blinds. The level of light transmission should be 20-40% but the shading should be capable of being rolled-up or removed in the winter months or on overcast days to allow extra light to enter. Light levels can also be topped-up in winter months with 'grow-lights' that extend the daylight hours to 12 or so. However, these can give out a lot of heat and care must be taken not to burn plants or people!
Ventilation can also help control temperature but at the expense of humidity. Ultrasonic humidifiers and misting systems can be set to operate when humidity drops to a pre-determined level and may be more reliable than evaporation systems as ventilation changes.

Pests and diseases

Growing any plants in an artificial environment can lead to pest problems not encountered in the garden. Black fly and scale insect can be particularly troublesome and the range of available insecticides is shrinking as the adverse effects of these are being realised. Biological control can be tried as can physical removal of insects if infestation is limited. If proprietary insecticides are used oil-based preparations should be avoided. In general, it is advised that for any preparation, the exclusions and instructions are carefully read and that it is used at half strength.