

GROWING STAGHORN FERNS



The genus *Platycerium*, commonly known as staghorn ferns, is a captivating group of epiphytic ferns revered for their striking antler-shaped fronds and unique growth habits. Native to tropical and subtropical regions of Asia, Australia, Africa and South America, these ferns have evolved to grow on vertical surfaces, predominantly trees, drawing nutrients and moisture from the rain and organic debris that collects in their fronds. With their dramatic appearance and relatively moderate maintenance requirements, growing staghorn ferns can be a rewarding experience for enthusiasts,

particularly those looking to expand their collection beyond conventional houseplants. Their sculptural forms, fascinating biology, and relatively modest care requirements make them ideal for beginners with a bit of curiosity and commitment.

Staghorn fern fronds

What sets *Platycerium* apart from other ferns is their dual frond system: shield fronds and fertile fronds. The shield fronds are rounded, sterile, and often cover the root mass, helping the plant attach itself to surfaces and collect organic material. As they mature, shield fronds often dry and turn brown, which is a natural part of their growth process. The fertile fronds are the dramatic, forked 'antlers' that give the plant its common name. These fronds can bear sporangia on their undersides in clusters known as sori that ripen over time producing a fine spore. Mature plants can grow impressively large depending on the species and environmental conditions.



Staghorn fern spores germinating on sterilised media in a sealed plastic tub.

Growing staghorn ferns

Platycerium ferns can be grown mounted on wood, hung in baskets, or potted in well-draining media. Ideal media includes sphagnum moss or coco husk either used



Young *P. ridleyi* ready to be potted on.

separately or together to provide a moisture retaining environment as well as good air circulation for root development. Their care closely mimics their native epiphytic environment. Provide bright, indirect light in the form of natural or artificial LED. Care needs to be taken as direct sun may scorch the fronds, while low light can slow growth. Most *Platycerium* species prefer temperatures between 15–30°C. Fertilise monthly during the growing season with a balanced, diluted liquid fertiliser or slow-release granules tucked behind the shield fronds. *Platycerium* prefer regular but



Young *P. madagascariense* potted up separately.

careful watering. Soak thoroughly when dry, but avoid letting water pool at the base of the shield fronds. High humidity is beneficial, particularly for tropical species. Misting or using a spray system can help in dry environments.

Propagation

Platycerium ferns are typically propagated via spores or by division of the mature plant in the form of juvenile plants or pups that emerge at the base of the shield fronds. Spores can be propagated and sown on moist sterile media, but germination and development requires patience and care, often taking many months. Division is simpler and involves separating basal pups from mature plants. However, not all species produce pups readily or frequently so cultivation from spore although more time consuming can yield a higher production of plants.

Sterilisation of spore growing materials is essential. To avoid issues including mould and algae it is advisable to microwave the moist growing media for at least 5 minutes and allow to cool before introducing spore. Appropriate media includes compost or finely cut sphagnum moss. Spore can then be lightly dusted over the sterilised surface, then covered to retain moisture and help prevent contamination.

Problems

Platycerium species are generally quite robust but like all plants can be affected by pests and diseases, especially in high humidity or poorly ventilated environments. Overwatering is the most common cause of poor health, often leading to rot and subsequently plant death. If this is encountered early the fern should be allowed to dry out, and reduce watering frequency until new fronds are emerging.



Staghorn ferns prefer to be mounted. Secure some moss and substrate to a wooden board using a plastic mesh or nylon thread. Plant the staghorn fern rootball in the moss and secure with additional thread if necessary.

The three common pests associated with *Platycterium* include Fern Scale (*Pinnaspis aspidistrae*), aphids and mealybugs. Fern Scale can be the most damaging especially in a greenhouse environment where plants are in close proximity. Fern Scale is a small, sap sucking insect that appears as raised nodules on the frond surface. Adult insects are immobile and protected by a hard outer shell. They feed by piercing the plant tissue and drawing out nutrients, which inevitably leads to yellowing, stunted growth and eventual death if left untreated. Treatment involves a number of different

methods including manual removal with a soft brush or cotton swap dipped in alcohol, spraying with a horticultural oil or using a systemic pesticide. As with any plant collection regular inspection and quarantining of new plants is important for disease prevention, as early intervention is the key to successful management.

***Platycterium* species and cultivars**

There are 18 species of *Platycterium*, with numerous hybrids and cultivars also available. *P. bifurcatum*, *P. willinickii* and *P. superbum* are popular species for beginners.

Staghorn ferns available in garden centres



Staghorn Fern
Platycterium bifurcatum



Giant Staghorn Fern
Platycterium superbum



Silver Staghorn Fern
Platycterium veitchii

Interesting staghorn fern species



Crown Staghorn Fern
Platycerium coronarium



Java Staghorn Fern
Platycerium willinickii



Elephant Ear Staghorn Fern
Platycerium elephantotis

Trickier staghorn ferns to grow



Ridley's Staghorn Fern
Platycerium ridleyi



Queen Elkhorn Fern
Platycerium wandae



Indian Staghorn Fern
Platycerium wallichii

The Exotic Fern Group is a community for enthusiasts of tropical, subtropical and indoor ferns. We bring together individuals who share a passion for these unique plants, offering opportunities to connect, learn and grow together. Members enjoy regular newsletters, social visits to private fern collections and online presentations. We also organise trips to larger public fern collections. Members can also benefit from access to fern and spore swap schemes, to expand and develop their own collections.

Join the community for free!

exoticferngroup.org/join

Author: Tom Bellamy, Platycerium UK
Version 2

ISBN 978-1-917669-12-2
© 2026 Exotic Fern Group

