

• 中文名稱： 觀音座蓮

• 英文名稱： Vessel Fern

• 學名： *Angiopteris lygodiifolia* Rosenst.
Angiopteris suboppositifolia auct. non de Vriese: Nakai

• 科名： 合囊蕨科-觀音座蓮科(Marattiaceae)觀音座蓮屬(Angiopteris)

觀音座蓮，山羊蹄 **Species:** *Angiopteris lygodiifolia* Rosenst. (Mules-foot Fern / Giant Fern)

• Common Names in Taiwan:

- 別名：
- **Guan-Yin-Zuo-Lian (觀音座蓮)** — "Guan-yin's Lotus Throne," referring to the massive, fleshy stipules at the base of the leaf stalks that resemble a lotus seat.
 - **Shan-Yang-Ti (山羊蹄)** — "Mountain Goat Hoof," a folk name based on the shape of the thickened base of the stipe (petiole) which resembles a goat's hoof.

• 原產地： 日本、琉球、臺灣。 **Origin and Native Range:** Native to **Japan**, the **Ryukyu Islands**, and **Taiwan**.

• 分布： 臺灣低海拔山區常見。尤喜山谷潮濕處。 **Distribution in Taiwan:** Commonly found in **low-altitude mountainous areas** throughout Taiwan. It particularly flourishes in **moist, shaded valley bottoms** and along stream banks where humidity is high.

1.庭植和盆栽觀賞：植株甚為繁茂、美觀，為造景不可多得的材料。2.食用：嫩芽，可煮或炒食；髓部含豐富澱粉，切取塊莖，剝去外皮，切塊加鹽煮食，是野外求生植物之一。3.提取芳香油，用以增加椰子油之香氣。 **Uses and Value:**

- 用途：
1. **Ornamental and Landscaping:** With its **lush, majestic foliage** and grand stature, it is an exceptional choice for **garden planting and container gardening**, especially in tropical or shade-themed landscapes.
 2. **Edible Uses (Survival Food):** * **Young Shoots:** The tender unfurling fronds (fiddleheads) can be **boiled or stir-fried** for consumption.
 - **Starchy Rhizomes (Pith):** The core of the massive rhizome is **rich in starch**. By cutting the rhizome, peeling off the outer skin, and boiling the chunks with salt, it serves as a reliable **wild survival food**.

3. **Fragrance Extraction:** It is used to **extract aromatic oils**, which are traditionally added to enhance the scent of **coconut oil**.

• **莖：** 莖塊狀，葉叢生於莖塊上。 **Stem (Rhizome):** The stem is **tuberous (massive and fleshy)**. The giant fronds are **tufted (clustered)**, growing directly from the top of this **block-like rhizome**.

• **葉：** 葉為二回羽狀複葉，長 1~3 公尺；葉柄長 30~90 公分，中下段具鱗片，基部具兩枚撕裂狀托葉；葉柄基部及羽片基部具膨大葉枕；羽片長 50~80 公分，小羽片長 8~10 公分，寬 1.5~2 公分，基部楔形，末端突尖至漸尖；葉緣鋸齒狀，葉脈單一或分叉一次，每一脈對應一齒，葉緣缺刻處有回脈，回脈僅達孢子囊群附近。 **Foliage (Leaves/Fronds):** The leaves are **bipinnately compound (2-pinnate)**, reaching an impressive length of **1 – 3 meters**. The **stipe (petiole)** is 30 – 90 cm long, covered with scales on the middle and lower sections, and features **two lacinate (torn-looking) stipules** at the base. A key diagnostic feature is the **swollen pulvinus** located at the base of the stipe and the base of each pinna (leaf segment).

The **pinnae** are 50 – 80 cm long, while the **pinnules (leaflets)** measure 8 – 10 cm in length and 1.5 – 2 cm in width, with a cuneate base and an acuminate (pointed) apex. The **margins are serrated (toothed)**. The veins are either simple or forked once, with each vein corresponding to one tooth. Notably, **false veins (recurrent veins)** originate from the sinus (notches) between the teeth, extending only as far as the vicinity of the sori (spore clusters).

• **花：**

• **果實：** 孢子囊群由 8~10 枚孢子囊集生而成，位在小羽片側脈接近葉緣處的兩側，長約 0.1~0.2 公分。 **Sori (Spore Clusters):** As a fern, this species produces **sori** (clusters of sporangia) instead of seeds. Each sorus is composed of **8 to 10 fused sporangia (synangia)**. These are situated along the lateral veins, positioned **near the margins** on both sides of the pinnules (leaflets). Each cluster measures approximately **0.1 – 0.2 cm** in length.

• **特性：** 莖塊狀，葉叢生；葉為二回羽狀複葉，長 1~3 公尺；葉柄長 30~90 公分，中下段具鱗片，基部具兩枚撕裂狀托葉；葉柄基部及羽片基部具膨大葉枕；羽片長 50~80 公分，小羽片長 8~10 公分，寬 1.5~2 公分，基部楔形，末端突尖至漸尖；葉緣鋸齒狀，葉脈單一或分叉一次，每一脈對應一齒，葉緣缺刻處有回脈，回脈僅達孢子囊群附近；孢子囊群由 8~10 枚孢子囊集生而成，位在小羽片側脈接近葉緣處的兩側，長約 0.1~0.2 公分。 **Key Characteristics Summary:**

- **Growth Habit & Stem:** The stem is a **fleshy, block-like rhizome** from which the giant fronds grow in a **tufted (clustered)** arrangement.
- **Frond Structure:** The leaves are **bipinnately compound**, reaching **1 – 3 meters** in length. The **stipe (petiole)** is 30 – 90 cm long, scaly on the lower half, and flanked by **two lacinate (torn) stipules** at the base.
- **Mechanical Joints:** A distinctive feature is the **swollen pulvinus** at both the base of the stipe and the base of each pinna (the "Mule's Foot" characteristic).
- **Leaflets (Pinnules):** Pinnae are 50 – 80 cm long; individual **pinnules** are 8 – 10 cm long and 1.5 – 2 cm wide, featuring a cuneate base and an acuminate apex with **serrated margins**.
- **Venation & Recurrent Veins:** Veins are simple or once-forked. Notably, **false veins (recurrent veins)** originate from the leaf notches but extend only as far as the **vicinity of the sori**.
- **Reproduction:** The **sori (synangia)** consist of **8 – 10 fused sporangia**, located along the lateral veins near the leaflet margins, measuring approximately 0.1 – 0.2 cm in length.