



## ***Medemia argun*** **(Mart.) Wurttenb. ex H.Wendl.**

**Status: Endangered (Johnson 1996)**

### **Common name**

Medemia, Argun Palm.

### **Natural range**

*Medemia argun* occurs as scattered individuals and populations in the Nubian desert of southern Egypt and northern Sudan. It was first described as *Areca passalacquae* from fruits collected by archaeologists from Egyptian tombs dating back to 2500 BC (Kunth 1826). Not until 1881 was the palm described from living material collected in Sudan. Since that time, *Medemia argun* has been collected on very few occasions. It was not discovered as a living member of the Egyptian flora until 1963 (Boulos 1968). The palm was subsequently considered extinct in the wild until its rediscovery in Sudan in 1995 (Langlois 1976, Gibbons & Spanner 1996). The main Egyptian population consists of just four males and three females of reproductive age, plus some juveniles, with the few other sites consisting of lone individuals. The Sudanese populations are larger, consisting of some hundreds of individuals, but these localities are geographically restricted.

The rarity of *Medemia* in current times is paradoxical, given its frequent occurrence in ancient tombs far to the north. It seems likely that *Medemia* once had a broader distribution than it has today. It is known that the Sahara has become more arid over this time frame. The range of *Medemia* may thus be shrinking as a result of long-term climate change

### **Recognition characteristics**

*Medemia* closely resembles its sister genus *Hyphaene*. It is an arborescent palm of tribe Borasseae (subtribe Hyphaeninae) with tough, blue-green fan leaves and a skirt of dry leaves persisting below the crown. Unlike *Hyphaene*, its stem is unbranched, it lacks a hastula at the top of the petiole, its petioles are yellow and are not as heavily armed as those of *Hyphaene*, and the fruit is purple-brown, plum-shaped and contains a seed with ruminant endosperm.

### **Natural history**

*Medemia argun* is a palm adapted to one of the harshest environments on the planet. Rain may not fall for years, and summer temperatures can exceed 40°C. Nevertheless, *Medemia* can survive only in places where it can reach ground water. On germination, the seed produces a very long root up to 3 m in length in search of water. Numerous seeds pile up under the crowns of mature females, baking in the sun and yet apparently remaining viable. It has been suggested that the palm is dispersed by flood waters following rains.

### **Threats to survival**

The primary Egyptian population, though remote, is visited by people. The palms are extremely vulnerable to acts of carelessness or vandalism; they would be very easily damaged by fire, for example.

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Progressive desertification and changes to ground water supplies represent long term threats to this remarkable palm

### **Current Conservation Measures**

A comprehensive census of unexplored potential sites for *Medemia* is under way in Egypt. A small nursery has been established in Aswan as an *ex situ* resource. Spare seedlings have been distributed as part of a local awareness campaign.

The main population of the palm in Egypt, Dungul Oasis, falls within a proposed protected area outlined by the Egyptian Environment Affairs Agency in their long term action plan (17% of Egypt area by the year of 2017).

### **Additional Necessary Conservation Actions**

A detailed assessment of the extent of the Sudanese populations and their relationships with Egyptian populations is required. Conservation genetic studies may be informative. Demographic studies are required to determine population dynamics in all localities.

Increased public awareness of the importance of these palms coupled with formal protection of sites is needed to secure their future

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A lone *Medemia argun* bearing fruits. Photo William Baker.



*Medemia argun* fruits are the shape and size of a plum.  
Photo William Baker.



*Medemia argun* grows in one of the harshest habitats in the world. Photo William Baker.