# EURYALE FEROX SALISB. OF THE FAMILY NYMPHAEACEAE: AN ADDITION TO THE FLORA OF PAKISTAN 

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#### Abstract

During the taxonomic field survey (2005-2009) of Marala Headworks wetlands, North West side of the Punjab, an aquatic plant species commonly growing along the water inlets on the left bank of River Chanab, facing Village Gondal, District Gujrat, Pakistan was identified as Euryale ferox Salisb., of the family Nymphaeaceae. This species is characterized by circular large leaves up to 120 cm across with quilted texture and a short thick rhizome.


## Introduction

The genus Euryale was first described by Salisb in 1806 as a monotypic genus of the family Nymphaeaceae, but sometimes treated under separate family Eurylaceae (Qaiser, 1993). The main distribution of Eurayle is Pakistan (Kashmir) eastward to India (Qaiser, 1993), Korea, Japan and China (Han, 1998), Oudh, Kashmir, East Bengal and China (Blatter, 1927).

During the ethnobotanical survey of Marala Headwork's Wetlands of Punjab in 2005, the authors identified a species of genus Euryale as E. ferox Salisb., found along the left bank of River Chanab, facing Village Gondal, District Gujrat.

The study area falls in Saharo Sindian Region which comprises mainly the flat alluvial Plains of Indus covering the major portion of Punjab and Sind. Climatically the area is characterized by hot dry summers and mild winters. The maximum daily temperature in summer is $41-46^{\circ} \mathrm{C}$ (Jalali \& Jamzad, 1999; Nasir \& Rafiq, 1995).

Euryale ferox Salisb., in Kon. \& Sims., Ann. Bot. 2: 74. 1806; FBI 1-113. Dal Lake Kashmir, 5200', common (Euryalaceae in Fl. Europaea) (Stewart, 1972); SAH. Herb. GCU, LHR.

## Description of species (Fig. 1)

Very prickly aquatic annual herb having a short, thick rhizome; leaves $25-120 \mathrm{~cm}$ across, generally flat, peltate when mature, circular with upper surface dark green, rugose and reticulate, ribbed, downy and purple lower surface, quilted in texture and spiny on the both surfaces; spines up to $3-6 \mathrm{~mm}$ in length, recurved and sharp; petiole spiny. Flowers small; 4cm across; sepals 4, erect up to 3 cm long; glabrous inside and prickly outside; petals up to 2 cm long violet inside and green outside; stigma discoid and depressed; ovary embedded in smooth torus, inferior. Fruit conical up to 11x 5-10cm with persistent calyx.


Fig. 1. Euryale ferox Salisb.
a. Euryale ferox in natural habitat, b \& c. Seeds and fruit, d. Authors exposing the ventral surface of the leaf, e. Spines on petiole and veins

Fl. Per.: July-Aug. Vern: Phul Mukhana, Chah Chua. Voucher specimen no. SAH 0705.
The local inhabitants of village Gondal, District Gujrat declared its ethnomedicinal uses for weakness, spermatorrhoea, leucorrhoea, aphrodisiac, retard aging, as well as astringent, oxytocic and analgesic in action. The seeds are eaten raw or roasted (Han, 1998).

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