

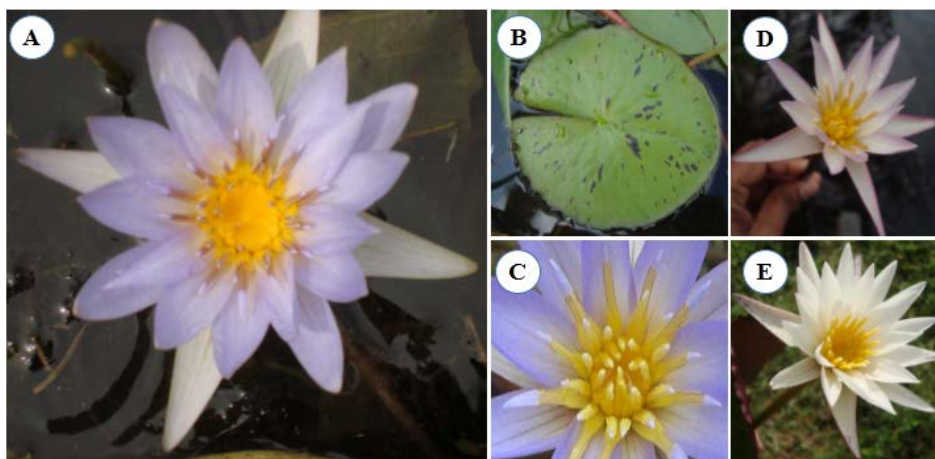
# DIVERSITY OF *NYMPHAEA* L. SPECIES (WATER LILIES) IN SRI LANKA

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Water lilies are aquatic herbs with perennial rhizomes or rootstocks anchored in the mud. In Sri Lanka, they are represented by the genus *Nymphaea* L. It has two species, *N. nouchali* Burm. F. and *N. pubescens* Willd (Dassanayake and Clayton, 1996). Water-lilies have been popular as an ornamental aquatic plant in Sri Lanka from ancient times as they produce striking flowers throughout the year. In addition to these native water-lilies, few ornamental species are also been introduced in the past into the water bodies.

## *Nymphaea nouchali* (Synonym- *N. stellata*)

*N. nouchali* has three colour variations, white, pink and violet blue. They are commonly known as "Manel". According to the field observations pink flowered *Nymphaea* is not wide spread like others. Blue and white *Nymphaea* are widely spread mainly in dry zone, Anuradhapura, Polonnaruwa, and also in Jaffna, Ampara, Chilaw and Kurunegala. Among these, pale blue flower



*Nymphaea* or "Nil Manel" is considered as the National flower of Sri Lanka.

Figure 01. (A)- Pale blue flowered *N. nouchali*, (B)- upper surface of the leaf, (C)- Stamens having tongue shaped appendages, (D) Rose flowered *N. nouchali*, (E) White flowered *N. nouchali*

Some morphological characters of *N. nouchali* (Sri Lankan National flower) are given below and illustrated in fig. 01; A- flower, B- leaf, and C- stamens.

- Flower** : Diameter 20- 30cm.
- Petals** : 8-30in number, Pale blue colour, linear shape , 3-6cm in length 0.7- 1.5cm width .
- Sepals** : 4 in number, with purple streaks.
- Stamen** : 8-40 in number. Blue colour tongue shaped appendage on the top.
- Leaf** : Linear to lanceolate, upper surface light green, lower surface dark purple colour, entire margin

## *N. pubescens*

*N. pubescens* is commonly known as "Olu". They are distributed throughout the island and abundant in the dry zone. The flower colour of *N. pubescens* varies from white to pink to yellow. Flower has 8-30 petals and 30-90 stamens. Anthers are yellow in colour and have no appendages.

Leaves have sharply dentate margin and abaxial surface is pubescent (with many short hairs) [Figure 02 (F) and (G)].

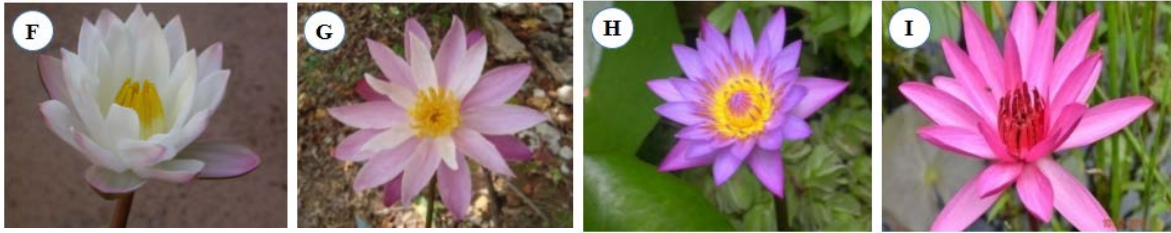


Figure 02. (F) White *N. pubescens*, (G) Rose *N. pubescens*, (H) Introduced purple flowered *Nymphaea* and (I) Flower of newly recorded *N. rubra*

Purple flowered *Nymphaea* is an introduced ornamental flower. Now it is naturalized throughout the island. This flower is erroneously identified as *N. nouchali* and in some local literature this flower is used to depict the national flower (Yakandawala and Yakandawala, 2011) [Figure 02 (H)].

*N. rubra* share similar morphological characters with *N. pubescens* (Hossain *et al.*, 2000). Therefore this flower is also commonly known as "Ratu Olu", but colour of the petals, number and the size of the stamens, size of the flower and leaf, and venation patterns in leaves are significantly different between these two species so that one can easily distinguish these two from each other. However, *N. rubra* has not been recorded in local literature until recently [Figure 02 (I)].

### Natural threats for native water lilies

Native *Nymphaea* species are widely used as offering to the lord Buddha and they are also used in ayurvedic medicine. In some areas rhizomes and petioles of *Nymphaea* are used as foods. However there are many threats for local *Nymphaea* species. Many water bodies are been destroyed due to construction of highways and other developmental projects. Further some invasive aquatic plants invade the habitats of native *Nymphaea* species. As an example purple flowered introduced *Nymphaea* species produce new plants by epiphyllous leaves, and they show rapid growth compared to native species (Yakandawala and Yakandawala, 2011). Especially it limits the natural habitats of *N. nouchali* and act as a silent invader. By protecting natural water bodies and by monitoring we can protect this diverse population of attractive and useful water lilies.

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