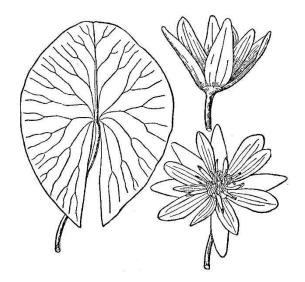
HAVE YOU SEEN THESE RARE WATER-LILIES?1

Cathy Foster and Cary Hamel

Southeastern Manitoba, including Whiteshell Provincial Park, supports many plant species that are rarely seen elsewhere in Manitoba. As an example, two of the area's water-lily species are considered provincially rare. Your assistance is requested to collect information on these species in order to better understand their range and abundance in Manitoba.

A total of three species of white water-lilies have been recorded in the Whiteshell. The Dwarf water-lily (*Nymphaea leibergii*) is thought to be the most common. However, in the past it has been confused with the rare Pygmy water-lily (*Nymphaea tetragona*). A third species, the Fragrant water-lily (*Nymphaea odorata*), is also rare and is distinguishable by its larger flowers with more numerous petals. The smaller yellow water-lilies of the genus *Nuphar* are not considered rare. All three white water-lily species have large, circular leaves that are split between the stem and leaf edge. The leaves float on the surface of calm water and are green above and often purplish below. Flowers are usually white although those of the fragrant water-lily are sometimes pink.

The Dwarf and Pygmy water-lilies are very similar. The leaves have 7-13 main veins and range in size from 2 x 3 cm to 15 x 19 cm (¾ x 1 ¼ inches to 6 x 7 ½ inches). Pygmy leaves tend to be slightly smaller and thinner with raised veins while Dwarf leaves tend to be thicker with impressed veins (observed from below). In addition, Pygmy leaves are sometimes mottled with reddish brown or purple above, especially when young. Pygmy flowers also usually have purplish centres.



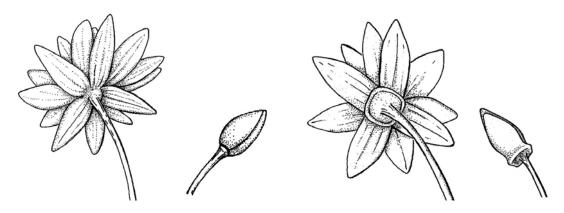
The rare Pygmy water-lily (© USDA-NRCS PLANTS Database / Britton, N.L. and A. Brown. 1913.

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The most obvious difference between these two species is seen when the flower is flipped upside down; a square is formed where the Pygmy water-lily flower parts attach to the stem. This feature is not apparent in Dwarf water-lily.



The common Dwarf water-lily flower and bud from below

The rare Pygmy water-lily flower and bud from below

(© New York Botanical Garden from Brittonia 48(4): 520-531).

The leaves of the larger Fragrant water lily range in size from $10 \times 10 \text{ cm}$ to $40 \times 40 \text{ cm}$ (4 x 4 inches to 16×16 inches). They tend to be rounder in outline than the other two species and have more veins (6 to 27). While the flowers of the other two species have 8 to 17 petals and are 3 to 7.5 cm (1 to 3 inches) in diameter, those of the Fragrant waterlily have 17 to 43 petals and are between 6 and 19 cm (2 ½ to 7 ½ inches).



The rare Fragrant water-lily

(© USDA-NRCS PLANTS Database / Britton, N.L. and A. Brown. 1913. Illustrated flora of the northern states and Canada Vol. 2: 79).

All three water-lilies typically grow in slow-moving or stagnant water in lakes, rivers and ponds. In the Whiteshell, good places to see white water-lilies are at "The Lily Pond" on Highway 44 west of Caddy Lake and along slow-moving portions of the Whiteshell River. Flowering can occur throughout the summer, particularly late summer.

Researchers from the Manitoba Conservation Data Centre (CDC) are trying to learn more about the distribution and abundance of white water-lily species in the Whiteshell and southeastern Manitoba. The CDC's mandate is to collect, maintain and provide information on the province's biodiversity. If you see white water-lilies, especially the Pygmy or Fragrant water-lily species, CDC staff would like to hear from you. Please report any observations to the CDC and include as much of the following information as you can:

What: Which species do you believe the plant to be, how confident are you and why? **Where:** Be as specific as possible. Use odometer readings to a known landmark or note the location on an existing or hand-drawn map.

When: Date(s) of observation.

Population description: How many plants are there (specify if precise count or estimate). How large of an area do the plants cover and what is the distribution pattern (are they spread out or in clumps?). What percent are flowering? What is the flower colour?

Habitat: What type of waterbody (pond, lake, river, etc)? Is the water stagnant or moving? What other vegetation is growing in the area? Are the plants in full sun? Do you see any type of disturbance or threat to the population?

Contact Information: Name, address, phone number, e-mail.

Take a picture if possible but **DO NOT** remove any plants. It is illegal to collect plants in a provincial park without first obtaining a permit. Always take care when surveying shorelines and aquatic areas – sturdy footwear and a life jacket are wise precautions.

For further information about the CDC and rare species in Manitoba please visit our website http://web2.gov.mb.ca/conservation/cdc/. You may also use our on-line form for reporting a rare species.

To report observations contact:

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