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## MYSTERY PHOTO

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This photo, taken on 9 July 1998 near Hatchet Lake in northeastern Saskatchewan, shows tiny parasols, about 1 cm across and standing about 10 - 15 cm high. They appear in this photo to be growing out of Cloudberry leaves, but in fact arise from moose droppings. Whose parasols are they? Send your responses to the editors of *Blue Jay*. The ANSWER will appear in the next issue.



## Answer for MARCH 2000 MYSTERY PHOTO

The fleshy appendages, orange in real life, are the telial horns of Cedar Apple Rust, a fungus in the genus *Gymnosporangium*. They grow in wet weather in spring, from woody galls on juniper branches and release spores that produce an alternate life stage on Saskatoon-berry and related plants. Have you ever found yellow-orange Saskatoon-berry plants with unusual projections, looking like short pins, sticking out of the leaves or berries? This is the other life stage of the rust, and it sheds spores too, that infect juniper and start the life cycle all over again.

The general name for this group of pathogens is Cedar Apple Rust. The species that infect Saskatoons are called Saskatoon-Juniper Rust. Look for the orange coloured telial horns in a wet spring - 1999 was excellent - wherever creeping juniper (*Juniperus horizontalis*) grows. You will find the woody galls on the plants year-round.

Correct responses were received from Norman Mountain from Merritt, BC and Jim Wolford in Wolfville, N.S. Norman was familiar with Cedar Apple Rust from his years working as a nurseryman at Lloydminster. The species he saw there, *Gymnosporangium macrocarpus* and *G. globosum* used Saskatoons and Hawthorn as alternate hosts, but if separated from these plants by 100 yards or more, would not infect them. According to Jim, there are five species of *Gymnosporangium* that occur on species of Juniper in Nova Scotia where their alternate hosts are shadbush (what the Nova Scotians call their close relatives of Saskatoon-berry) and other members of the same family, eg. apple, chokecherry and Mountain Ash.

The editors would like to thank Robin Morrall, Jill Thomson and Gary Jones for generously providing information on this mystery photo. Excellent photographs of the life stages on Saskatoon-berries can be found in *Growing Saskatoons - A Manual for Orchardists* by Richard St-Pierre.

