RARE ORCHIDS KEEP QUIET ON POLLINATION PROCESS

The majestic spider orchid (*Caladenia winfieldii)* Credit: Andrew Brown

Orchids located throughout the south-western Australia continued to excite and amaze locals during the recent wildflower season as conservationists work to secure the endangered specimens.

A few species, such as the majestic spider orchid (Caladenia winfieldii) and the pink spider orchid (Caladenia harringtoniae), came to the attention of orchid enthusiast and Albany Advertiser editor Nathan Watson on a recent field trip.

The exact location of the rare orchids is a closely guarded secret by conservation biologists like Western Australia Herbarium Orchidaceae curator Andrew Brown.

Mr Brown and UWA Albany-based Winthrop Professor Stephen Hopper named the majestic spider orchid in 2001 after retired forest worker Harry Winfield who discovered the plant near Walpole.

Mr Brown is also a Western Australia Native Orchid Study and Conservation Group founding member and the Department of Parks and Wildlife threatened flora coordinator, and oversees a citizen science project to collect information on threatened and vulnerable orchids.

The Adopt an Orchid program involves volunteers monitoring thirty-eight priority species, including the majestic spider orchid, to determine conservation status and recovery plans to protect their population—which is limited to a single site east of Manjimup.

Mr Brown has spent more than forty years studying Western Australia's native orchids and says the scarce distribution of the majestic spider orchid is mysterious.

He says there are less than a hundred majestic spider orchids known in the wild and although the main threats to the species survival include grazing by feral pigs and kangaroos, fire and dieback, the precise cause of its rarity is unknown.

"It may be something to do with a pollinator or a rare fungus associated with the Mycorrhizas fungal relationship that supplies nutrients to the plants—but we do not really know," he says.

Mr Brown says feral pigs inhabit the same area and are known to dig up the specific root that stimulates the orchids' growth during a brief flowering season from October to November. "When we first looked at that population it was badly damaged by pigs," he says.

Mr Brown says the majestic spider orchid's pollination process could also be a contributing factor to its limited number. "We do not really know what the pollinator is—there is a bit of mystery about it," he said.

"We suspect it is a native bee and we know it worked as we have seen plants with seed pods but I have never seen it in action.

"Introduced bees could be a threat to native orchid populations as they remove pollen but do not deposit it." ■