

Mystery native sun orchid found in our park

A rare and unusual native sun orchid has been found growing in the East Harbour Regional Park. Local MIRO member Sally Bain found the mystery orchid on 25 June while walking with her dog and checking rat traps. It was in bud at the time, shortly before the first flower opened.

She knew it was something different because native sun orchids usually flower in summer, so she took a photo with her phone camera and posted a photo to the New Zealand Native Orchid Facebook group. Following a tip from Sally, another group member re-found it and photographed it with the flower beginning to open on 6 July. They noticed that the flower was an unusual mix of pale mauve and pink. After I saw the photos posted online, I went to look for it too. When I found it the next day, I took this photo, by which time the flower was fully open.



Photo credit: Michael Szabo

The mystery sun orchid is unusual because it is winter flowering rather than summer flowering, and the flower has remained open continuously around the clock, rather than just between 12 noon and 2pm as sun orchid flowers do in summer. The flower is about four centimetres across, growing a few centimetres above the ground, with thin green leaves up to about ten centimetres tall.

The native sun orchid species known to grow in the park include Spotted Sun Orchid or Makaika, White Sun Orchid, and Hatch's Sun Orchid. These species often have a subtle sweet spicy fragrance when they flower but the mystery winter flowering sun orchid did not seem to have any fragrance at all.

Te Papa Tongarewa Museum of New Zealand scientists Carlos Lehnebach and Lara Shepherd are now studying the mystery sun orchid as part of a three-year study that aims to identify the taxonomic status of more than twenty as yet undescribed New Zealand native orchids. Their research project is funded by the Australia and Pacific Science Foundation and involves the use of DNA barcoding markers and gene sequencing technologies.

Ian St George, editor of the New Zealand Native Orchid Journal, thinks the mystery sun orchid is probably *Thelymitra hiemalis*, an endangered Victorian Winter Sun Orchid that may have been found in NZ once before on Great Barrier Island in 2019. It is considered by several Australian naturalists to be a rare mutation of one of the spotted sun orchids.

Many people know that pest control benefits small native birds that nest in the park such as Rifleman, Whitehead, and NZ Tomtit. Sally Bain says that she has noticed more native orchids flowering in the Park in recent years thanks to pest control operations carried out by Greater Wellington and MIRO. This is because controlling introduced pest species such as rats, possums and deer removes non-native animals that would otherwise browse on native plants, including native orchids.

Michael Szabo on behalf of MIRO