in the limestone mountains of northern Spain, and it was one of the eight orchids that we saw on the limestone terraces of the Burren in Ireland.

It seems that crow-flowers are members of the Ranunculaceae, and a few different buttercups have 'crowfoot' as part of the common name; *Ranunculus acris* as meadow crowfoot, *R. hederaceus* as ivy-leaved crowfoot and *R. lenormandii* as water crowfoot (Hutchinson 1955).

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A Variation on *Simpliglottis cornuta* at Awhitu District, Auckland

Tricia Aspin

On 30 September 2012, while orienteering in the pines of Waiuku Forest, I noticed colonies of the ground orchid *Simpliglottis cornuta*. Interested in taking a closer look, I returned, after the run, with Cara Lisa Schloots, a fellow orienteer and student who has chosen to study native orchids in the Mt William Reserve near Bombay for her Duke of Edinburgh award. Cara Lisa had noted that some specimens were sporting twin flowers and some had three leaves. We examined the colonies in the vicinity and found that all had one or more twin-flowered individuals among them.

This forest block was originally planted in *Pinus radiata* in 1939 and was logged and replanted in 1975/76 (Auckland Conservancy). Now under these nearing-forty-year-old trees is a lush understorey of ferns, mainly *Asplenium oblongifolium* with occasional *A. polyodon, Microsorum pustulatum, Pellaea rotundifolia* and *Pteris tremula.* Scattered among the ferns are numerous colonies of *S. cornuta* and on the lower slope some *Microtis unifolia* as well. Nearby blocks were checked but found to have no *S. cornuta* and unlike those blocks cattle have been excluded from this one during this rotation of pines.

We returned on 10 0ctober, accompanied by Eric Scanlen and Stella Christoffersen, anticipating the flowers to be more fully open and were well rewarded. Walking through a greater area of the block many more colonies were noted and again most sported a twin-flowering plant. I counted 15 twin-flowered specimens in bud at the time. Something had eaten off many of the mature flowers. Snail shells, possum scat and evidence of rabbits were noted. Rats are another possibility. A twin-flowered specimen was collected (AK 334858). Most of the mature flowers were eaten off when Eric visited again on 20 October and by 28 October, when he took another look with Pam Shearer, only the mature flowers under cover of sticks or ferns were not nibbled off.

I haven't heard of twin-flowered specimens in *S. cornuta* and it strikes me as unusual to have around 1% of the population twin-flowered, as opposed to the normal single-flowered form. Occasional three-leaved plants have been reported elsewhere but here some 10% are three-leaved. The so-called third leaf was smaller than those of the usual twin-leaved plants. The twin-flowered plants sported a large floral bract on the prime flower like a half-sized third leaf but the secondary flower had just the usual small, clasping floral bract (Figs. 1 & 2). One of Eric's observations was that some of the single-flowered plants had an additional and large floral bract *ahead* of the flower as though waiting for the prime flower to emerge. We noted that all calli were mid-brown and none of the usual specimens with green calli could be found (Fig. 3). More observations are

Fig. 1. Twin-flowered *Simpliglottis cornuta* at Waiuku Forest, showing large and small floral bracts (fb). Photo: Eric Scanlen, 10 October 2012.

Fig. 2. Side view of twin-flowered *Simpliglottis cornuta* at Waiuku Forest, with large and small floral bracts (fb). Photo: Tricia Aspin, 10 October 2012.

Fig. 3. *Simpliglottis cornuta* at Waiuku Forest, showing unusual colour of callii. Photo: Tricia Aspin, 10 October 2012.

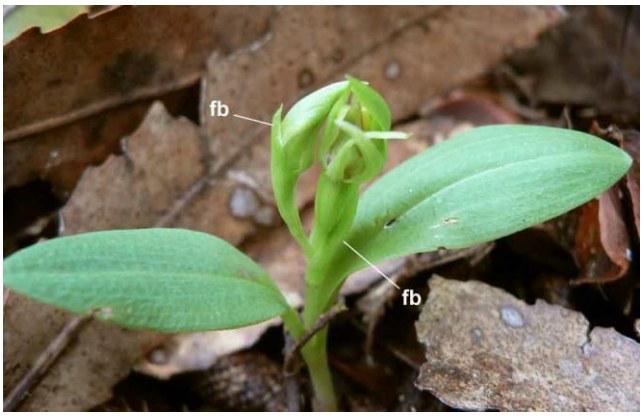

Fig. 4. Twin-flowered *Simpliglottis cornuta* at Boiler Gully Road; neither floral bract (fb) resembles a leaf. Photo: Tricia Aspin, 31 October 2012.

needed as some features differ somewhat from *S. cornuta* s.s. We agreed that the Waiuku Forest form of *S. cornuta* has linked mutations of big bract, apparent three leaves and twin flowers.

Waiuku Forest is at the southern end of the Awhitu Ecological District and so a visit was made to a known colony in native bush off Boiler Gully Road in the northern part on 31 October. Surprisingly among the few specimens, all with mid-brown calli, there was a twin-flowered plant. This one differed from those observed at Waiuku Forest in that although quite large, the prime floral bract did not resemble a third leaf (Fig. 4).

I have observed the orchids of Awhitu since 1998 and occasionally have seen an extra flower or two on other few-flowered species. This is the first occurrence of twin-flowering *S. cornuta* noted and its abundance, this season at least, has to be unusual.

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