**Pimeleocoris luteus** in Hawkes Bay and a new host record for *Xiphoides myersi* (Hemiptera-Heteroptera: Miridae: Phylinae), plus notes on *P. roseus* and two species of *Nysius*

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**Introduction**

Three Pimelea bugs: *Pimeleocoris luteus*, *P. roseus* and *P. viridis* were described by Eyles & Schuh (2003). They are indigenous to New Zealand. The last two species mentioned are classified as ‘Threatened / Nationally Critical’ (Stringer et al. 2012a), the host plant of *P. viridis* (*Pimelea villosa*) is ‘At Risk / Declining’ (de Lange et al. 2013) and now known in the wild only from Rarawa Beach, Northland. *P. luteus* is more widespread, and has now been collected in Hawkes Bay.

Earlier I reported (Eyles, 2006) that the arboreal canopy trapping study by McWilliam & Death (1998) provided two new host records for *Reuda mayri*, White, 1878. That same study has provided a new host record for *Xiphoides myersi* (Woodward, 1950).

Bell Rock (Fig. 1) is well worth a visit. It makes a pleasant outing, rewarding for scenery alone, if not for any entomological finds. At the Tutira Lake store turn inland away from the lake onto Matahorua Road in a more-or-less NW direction for about 5 km, and then turn left into Pohokura Road (gravel surface) for approximately another 12 km. Consult Cunningham (1993) pages 43-45 for a map showing the start point and description of the walking track. The preceding maps and walks (starting at Bellbird Bush Scenic Reserve, page 36) in the same area are very useful for orientation.
The farm access track high above a deep pastural basin has much exposed soil, of large coarse grains many of which are pale. It is ideal habitat for prostrate growing *Pimelea*. This is reminiscent of the type locality of *Pimeleocoris luteus* beside Waipakihi Road, and of the Rangitaiki Plains where this species of mirid also occurs (both on the volcanic plateau). The Bell Rock area has also been covered in volcanic ash (Dougal Townsend, personal communication).

The Bell Rock area is also good habitat for *Nysius huttoni*. Many were seen, but only one specimen was collected on 2 Nov 2008, a male for confirmation of identification. This is deposited in the New Zealand Arthropod Collection, Landcare Research, Auckland (NZAC).

Until relatively recently taxonomic and nomenclatural problems in the genus *Pimelea* frequently meant lack of confidence in recording host plant species, which led to the use of terms such as “on *Pimelea* sp.” and “on *Pimelea* (prostrata group).” Although *Pimelea* has now been subjected to a series of revisions by the late Colin Burrows (2008, 2009a,b, 2011a,b), the treatments offered there have helped clarify only some of the variation within this genus; some of the treatments, particularly for *P. prostrata* need further testing (P.J. de Lange, personal communication).

**Pimeleocoris luteus**

**Material examined:** HB, 1 male, 3 females (collected as fifth instar nymphs and reared to adults) and 2 fifth instar nymphs, Bell Rock, 2 Nov 2008 A.C. Eyles, on *Pimelea* (prostrata group). Deposited in NZAC.

Previously known from the Coromandel, Taupo, Wairarapa and Marlborough areas (Eyles & Schuh 2003; Larivière & Larochelle 2004), this record extends the known distribution of this species to include Hawkes Bay.
Short jerky flights just above the host plants indicated the presence of these bugs as I was walking up the farm track after emerging from the bush start of this walk. *P. luteus* mirids are pale, about the size of some grass seeds, and could be mistaken for such seeds being blown about in the breeze. Only an adult male and a handful of nymphs were collected to confirm identification and this distributional record.

From Burrows (2009a) it would seem that the host plant for *P. luteus* on its Rangitaiki plains site may be *Pimelea prostrata* subsp. *vulcanica* and this is most probably the plant at the Waipakihi Road site. The Bell Rock host plant (there were several of them) will need to remain undetermined until the site is investigated by botanists. Although the names of two other *Pimelea* plants are associated with the Maungaharuru Range (Burrows 2009a p. 172, 2011b), the Bell Rock site is not mentioned.

**Conservation of Pimelea bugs and their host plants:**

There were many adults and nymphs of *P. luteus* at Bell Rock. This was also so at the two locations in the Taupo area where it has been collected (Eyles & Schuh 2003). But is *P. luteus* really “safe”? Assessments and studies of conservation of both insects and plants over recent years have brought to the fore a keen awareness of just how fragile some of these small pockets of our flora and fauna are. The problem comes into sharp focus by the plight of Pimelea bugs when their host plants are also rapidly declining or are under threat (de Lange et al. 2013; Burrows 2011b; Stringer et al. 2012a). Unfortunately the concern is not just over these mirids, as there are also species of Lepidoptera in the same dire situation because their *Pimelea* host plants are critically threatened, as has been emphasised by Stringer et al. (2012b). Yet sadly we are only just working out the taxonomy and systematics of some of these insects and plants. Are there others which will become extinct before we even know what we had?
Pimeleocoris roseus and Nysius convexus

The species of Pimelea growing on the Waiho Valley river flats behind the Franz Josef airport has been identified by Burrows (2009a p. 172, 174) as Pimelea prostrata subsp. prostrata. This is the host plant for Pimeleocoris roseus, and I have also collected N. convexus under this plant in association with moss.

Xiphoides myersi

Material examined: WI, 1 male, Pohangina Valley, on rata (lower canopy) on cliff, Jan, H.A. McWilliam; 1 male, Pohangina Valley, Pokohu Reserve on totara (lower canopy), Mar 1995, H.A. McWilliam. Both deposited in Massey University Ecology Group collection.

The two males studied were dissected to check details of the genitalia, particularly the relative length of the sharp spur on the phallotheca.

McWilliam & Death (1998) carried out canopy sampling in the Wanganui area in 1995 and 1996. Northern rata, Metrosideros robusta (Myrtaceae) is a new host record for X. myersi, and the above specimens are the first record of X. myersi from the lower canopy of both northern rata and totara.

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References


*Figure 1.* Bell Rock, Maungaharuru Range. *Photo:* A. C. Eyles