

Scientific expedition report

Discovery of new specimens and species of Occlupanida
(Haplognathidae, Toxodontidae & Tridentidae) in the
Metropolitan Perth region

In partnership with



Matthew A.

Introduction

This report constitutes the findings as the result of two expeditions and several chance findings. Findings occurred as early as February 2nd and the expeditions occurred on March 2nd and March 9th, the former was an urban exploration, which took place along the immediate vicinity of Rokeby Road, and the latter was an excursion into a shopping centre in Claremont.

The findings resulted in the announcement of *V. amplusulcia* and a specimen bearing similar morphology to *U. obtusamaxilla brevis*.

The urban exploration resulted in the documentation of a *P. utiliformis grandis*, and the discovery of 1 new specimen also bearing similarity to *brevis*, though with a differing morphology to the first, namely a smaller oral groove, making it a closer relative to the *Brevis*.

The final expedition resulted in the discovery of the *Tridentidae* and *U. obtusamaxilla* specimens, further documentation of *P. utiliformis grandis*, and the confirmation of the *Vadosupalpus* and the small-grooved *Brevis*-esque specimen.

Eight specimens have been attached with this document for study by the HORG.

Insights into *P. utiliformis grandis*



The discovery of two specimens of *Palpatophora utiliformis grandis* on March 2nd (left) and March 9th (right) has resulted in new and important information about the species' complex relationship with their host organisms.

It has been confirmed that the left specimen, bearing the marking NADINE, traces its origin from where it was found in a gap between the door to an empty restaurant and the sidewalk, to a bag of oranges. The specimen on the right, bearing the long green tag, was discovered still located on its host organism—a largish bag of kestrel roasting potatoes.

These particular food products, considerably more 'bulky' than bread and requiring a much thicker and durable plastic, make it an ideal location for a *Grandis* with its larger oral groove to attach to. The weaker thinner plastic of normal breadbags do not create a suitable habitat.

The potato-inclined ooclupanid is far more interesting when it comes to noting the interactions between ooclupanid and plastic. Although a parasitoid, it appears symbiotic relationships have formed between the two, the ooclupanid receiving a steady source of nutrients, while the host organism can utilize the ooclupanid as a resource of additional surface space for the purpose of advertisement, among other things.

Vadosupalpus amplusulcia



The first two samples of *Vadosupalpus amplusulcia* (shallow-palp; spacious groove) were found on both sides of their host organism, a home-brand French roll wrapped in plastic in early February this year. The third was discovered on a tigger baguette.

Though it bears similarity to species of *Stomatocardia* and *Unidentia*, these oocclupanids have been confirmed by the HORG to be in a new genus entirely due to its large oral groove and long and shallow lateral palps. The oocclupanid measures 22 by 19 millimeters with a 1 millimeter thickness.

Observations during the shopping centre expedition on March 9th show that, in this part of the world, the *V. amplusulcia* is prevalent, and flourishes; never in association with bread-bags but very commonly found on other types of pastries. The *Vadosupalpus* has not yet been found to bear any kind of markings.

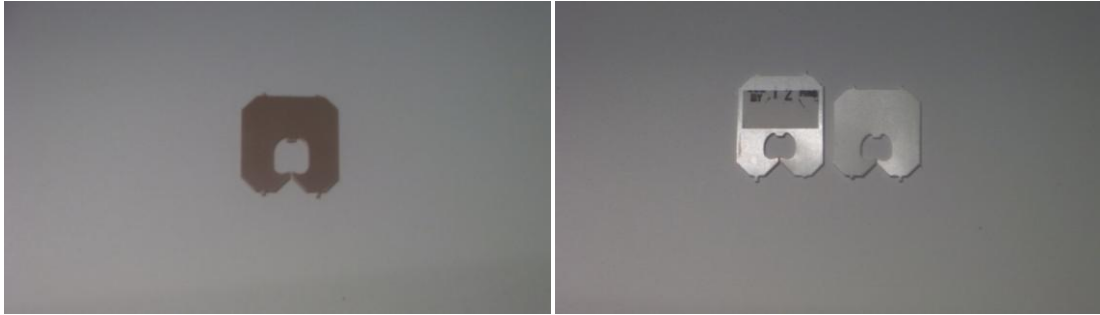
Newly-discovered genus of *Tridentidae*



Whilst common, the order *Tridentidae* contains very few species or genera. This specimen bears little similarity to any recognized by the oclupanologist community. If anything, it is most similar to the *Sphaeroplanis hollandium*, but only due to its square shape and presence of palps. There are still many differences, including the lack of the greater palp dip, a larger oral groove, its smaller size (the specimen measures 23 x 21 mm) and its unique sharpened palps, most obvious in the two lesser palps. These defining morphological characteristics place it in a new genus of itself. The name *Nevani spinustratum* (Nevana's spiky base, name partly related to host organism) has been proposed for this clip.

This distinctive oclupanid was located on a packet of cheese & tomato pizza bases, made by a company named Nevana, on the shopping centre exploration. It has not been found on the spines of other plastic-wrapped products, so it should be considered uncommon here. It may be that this species tends towards cooler environments.

U. Obtusamaxilla* specimen and others bearing similarity to *U. Obtusamaxilla brevis



One *Unidentia obtusamaxilla* was found in the exploration on the 9th, feeding off a packet of sprouted spelt bread.

On the same expedition, a similar occlupanid was found located on a recently-baked ciabatta. It is similar to the *U. obtusamaxilla brevis* in all respects although it was slightly shorter (a 22 x 22 in comparison to the 24 x 22). Another specimen had been found earlier on the 2nd trip: slightly yellowed around the edges, discarded under old shelving in an alcove which housed paint cans, off the Crossways carpark. Until the second discovery, it was thought to be a rare kind.

Even earlier so, shortly after the first discovery of the *Vadosupalpi*, four brown samples were found after a grocery pack-away. The same size (22 x 22) and morphology to the 'shorter *brevis*', except bearing a considerably wider oral groove. Thankfully, the later discoveries soon tied this into to the extended *Obtusamaxilla* family. Broken down:

- *U. Obtusamaxilla* (found on 9th) Host – spelt bread. 26mm
- *U. Obtusamaxilla brevis* (shorter variant, not found here) 24mm
- *Brevis* shorter variant (shorter still, same oral groove / found on 2nd and 9th.) Host – ciabatta. Uncommonish. 22mm
- *Brevis* shorter variant 2 (same as variant 1 with larger oral groove / found early February) Host unknown. Rare. 22mm

The latter's host organism is unknown, and the occlupanid has not been seen again. Its particular colouring suggests it may be linked to the *amplusulcia*.

Final Note

In continuing with these essential discoveries, fieldwork will continue in this part of Australia to determine more about the local occlupanid population.

Currently, possibilities for future explorations include 1) Researching the potential link between the *Brevis* variant 2 and the *Vadosupalpus amplusulcia*, and 2) Locating potential samples of *Tempotortus*, a genus found only in European analog watches, in the collection of European analog watches here. The research group will be notified upon any findings in these areas.