

# Observations, Discussions and Updates

## OBSERVATION # 25: *MYOTIS WELWITSCHII* RECORD FROM GAUTENG



Figure 1: *M. welwitschii* after recuperation



Figure 2: View of unfurled left wing

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**Date of observation:** 20 November 2009

**Locality:** South Africa, Gauteng Province, Springs, Strubenvale

**Coordinates:** 26.25° S ; 28.48° E (approximate)

The bat was found cold and wet on the ground by children, near a school. There was a lot of rain in the area at this time and it may therefore have been knocked down in a storm. It was kept at the nearby Wildlife in Crisis Bird and Mammal Rehabilitation Centre for a few days where it was fed recovery food ('Canine A/D') and mealworms, until it fully recuperated.

A female, it was judged an adult by the complete ossification of the bones in its wings.

The bat bit readily when handled and made audible alarm calls. It was released at night on 25 November next to a marsh and pond, about three kilometres from the centre of the suburb where it was found. Prior to this the bat was photographed (see Figure 1 & 2), measured and weighed (mass 17.6 g, forearm length 56.5 mm).

Call recordings were made using a Tranquillity Ecomega time expansion bat detector in a flight tunnel about eight metres long, and roughly a metre and a half in diameter. Its call upon release was also recorded.

Analysis of the calls using Batsound v3.31 found that flight tunnel recordings had a higher peak frequency (~40 kHz) and slightly shorter duration (~2 ms) than that of the release call (~33-34 kHz, ~3 ms). This may be the result of an adjustment by the bat to the more cluttered environment of the flight tunnel and would suggest the limited utility of the latter in determining the aspects of

a typical foraging call. However both call types display two parameters characteristic of Myotids, namely short duration and a broad band of frequency of the pulses.

Figure 3 shows a sample of two pulses of a flight tunnel recording with power spectrum analysis of each. Figure 4 shows the same for the release call.

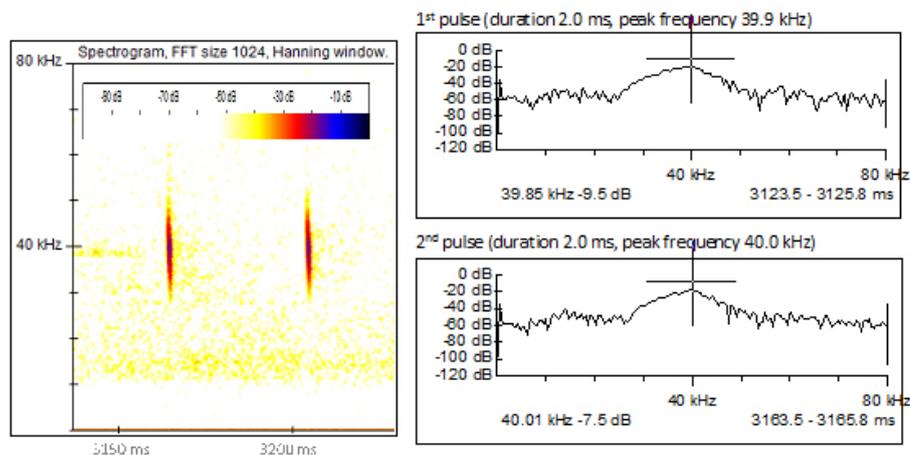


Figure 3: Sample spectrogram and power spectrums for flight tunnel recording.

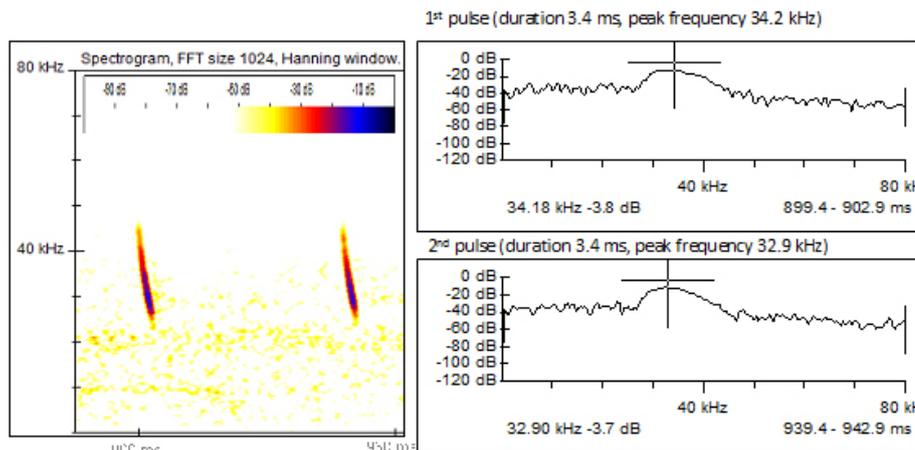


Figure 4: Sample spectrogram and power spectrums for release call.