

# The discovery of Large Cone-head Bush-cricket in the Isles of Scilly

**Ren Hathway, Paul Stancliffe and Martin Goodey**

On the evening of Tuesday 19th August 2003, Ren Hathway (RJH) set off around the Garrison, St Mary's, Isles of Scilly, to attempt a survey of Speckled Bush-Cricket *Leptophyes punctatissima*. On reaching an area of open heath to the south of the campsite, a brief and slightly puzzling 'stridulation' came over the bat detector. Returning the following evening, the same noise was heard and suspected to be a rather sluggish Long-winged Cone-head *Conocephalus discolor*. Nevertheless, the noise was mentioned in a phone conversation to Chris Haes (ECMH) later that evening, and it was suggested that a tape recording might be helpful in clarification.

And so it was that RJH returned for a third evening, Thursday 21st August, joined by Paul Stancliffe (PAS) with a small digital recorder. However, the weather had changed, and instead of the clear balmy nights of 19th and 20th, there was a freshening south-west wind and considerable cloud cover. By 9.35pm there was still no sound, and we were just at the point of leaving when an incredibly loud, high-pitched, (almost electrical) and continuous buzz came from within a gorse bush not more than 2m away! We were both incredulous and more than a little excited, instantly knowing that this noise must be coming from something that shouldn't be on Scilly! On 26kHz it was positively deafening, and at this point, PAS likened the stridulation to that of Roesel's Bush-Cricket *Metrioptera roeselii*, of which he has had broad experience.

The first thought was to get it on tape, both natural sound and through the detector on both 26kHz and 46kHz (using a Stag Electronics 'Microbat'). The tape was left recording as we searched the bush for the source. Within a minute we had located the individual, on a fairly exposed branch, facing down and partially obscured. Our first impression was that of a Great Green Bush-Cricket *Tettigonia viridissima*, but on closer inspection it clearly



Head of a male Large Cone-head photographed on St Mary's, Isles of Scilly, 22nd August 2003. Bryan Thomas

appeared to be an enormous green cone-head!

The sense of the importance of our discovery made us tingle. RJH could vaguely recall an image of this cricket in the Collins guide (Chinery 1997), alongside the two 'regular' cone-heads, and suspected that it might not have been recorded in Britain before. We needed to secure the insect and record the details in photographs. We also wanted Martin Goodey (MPG) to be present and PAS called him on his mobile. Within about 15 minutes MPG was with us, complete with a bright torch and a large jar, and after a couple of failed attempts, the cone-head was safely contained.

Our excitement was now at its height. We went directly to Bryan Thomas (BT) (of the 'Pilots Gig'), and then home in order to consult the literature. Both Collins guides indicated a Large Cone-head *Ruspolia nitidula*, and a late-night phone call enabled ECMH to confirm this identification, particularly after hearing our recording.

The Large Cone-head was kept overnight and photographed the following day by BT and MPG, and was made viewable to the interested public between 5pm and 6pm that afternoon at the Pilots Gig Restaurant, our wildlife information centre. It was released at the site of the original finding at 8pm, and was recorded stridulating again at 10.30pm by MPG.

The following morning, 22nd August, events took another interesting turn. PAS (an electrician) had a call out to the island of St Agnes, where he met up with Mike Hicks (MH), the Scillies' moth recorder. PAS related to MH the tale of the previous evening's discovery. This interested MH greatly, as his sons, Ross and Murray, had heard similar noises that same night on St Agnes, although he couldn't actually hear the sound himself. PAS, RJH and MPG all suggested to MH that what they had heard could well be more individuals of the Large Cone-head, and that if possible the two sites should be





St Mary's specimen of a male Large Cone-head photographed on 22nd August 2003. M Goodey

visited again with the aim of confirming the identity.

ECMH was kept informed of the proceedings, and on Saturday morning, 23rd August, MH phoned RJH with the news that he had indeed caught a cricket at the first site near Periglis Church, and it was another *Ruspolia nitidula*! It had a hind leg missing, but otherwise appeared to be quite healthy. RJH caught an afternoon boat and collected the specimen from MH and arranged for it to be transported by helicopter to ECMH (the Cornwall Orthopteroid Recorder) in Penzance. This cone-head will be kept alive in a study tank until its natural expiry, when it will form a voucher specimen for the national collection.

MH also managed to catch the second St Agnes cone-head in the garden of Downs Cottage on the evening of the 26th August. The owner claimed that he had been hearing the noise for about a week and had wondered what it was! MH obtained photographs the following day and then released it back into the garden. This individual also had a hind leg missing, but the wings were slightly paler and browner than the other two, and perhaps a little more abraded.

## Description

This is based on the original specimen from the Garrison, with measurements from the voucher specimen from St Agnes. The initial impression was that of a cross between a Long-winged Cone-head and a Great Green Bush-cricket. Size and structure was somewhere between the two, but approaching *T. viridissima* (around two-thirds the size), but slimmer. Body length, from head to tip of abdomen, was approximately 34mm, elytron 37mm, pronotal shield 6.5mm. It was slender and elegant in proportion.

The colour was completely apple green, including wings and body, but the mouthparts were distinct contrasting yellow. The wings were very long, projecting approximately 15mm beyond the tip of the abdomen (giving the appearance of an extra-macropterous Great Green Bush-cricket). At the tip of the abdomen the cerci

were clearly seen and quite distinctive in shape: both fairly thick-based hooks that pointed inwards at the tip.

The head was probably the most striking aspect of the creature's appearance (besides the colour, wing length and stridulation). The peak of the head was an extremely acute angle and projected to form a most obvious 'cone'. The shape was such that the mouthparts were always the rear most part of the head. The eye was horizontally oval, and positioned near the peak of the forehead, just behind the base of the antennae. A small white spot was present between the eyes. All mouthparts were yellow. At rest, the head was often kept lowered below the level of the pronotum, giving a rather hunched appearance. The antennae were just longer than the body, at 39mm.

The song was loud and approached the natural hearing limit, but was intense. PAS compared it with the buzzing of an electricity pylon. In calm weather it could be heard over 50m away, and for long periods consisted of a constant and continuous buzz, with no break. The 'ringing' quality or resonance was not unlike *T. viridissima*. Altogether a really rather distinctive and striking insect.

## Acknowledgements

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