

# A few notes on vismig sound recording

Dave Pennington, November 2019

## INTRODUCTION

In 2014 I began experimenting with sound recording at our vismig watch point at Harden Quarries on the border of South and West Yorkshire, 4 km south of Holmfirth. This was started with the intention of documenting any unusual occurrences for posterity, but also as an aid to the identification of birds in what are often fleeting encounters. In these respects, a sound recording is similar to a photograph, but I'd argue that in some ways it can be even more useful. After all, it's much easier to describe and retain in the mind what you've seen than it is to do the same with what you've heard. Well, it is for me anyway. So, when I arrive at the watch point, the very first thing I do is set a recorder running.

## EQUIPMENT

As far as recorders go, there are options available from e.g. Sony and Tascam, but my experiences are confined to the Olympus LS series, and what follows may apply only to them. These devices are about the size of a basic (non-smart) phone, and only slightly heavier. Assuming they're pointed in vaguely the right direction, the internal mics of some models in this series (but perhaps not all – see below) will pick up everything you can hear with your ears, and sometimes more. So, I'd say that one of these, along with a windshield, some fully charged batteries, and perhaps a mini tripod or beanbag, is all you really need.

Models I've tested and would recommend are the LS-3, LS-10, and LS-11. All are now discontinued, but with patience can be picked up on eBay for as little as £50. On top of that you'll need a windshield, which might cost another £25. By windshield I mean one of the furry ones available from various third-party manufacturers - not the flimsy foam ones that come in the box and which are inadequate in anything more than a wisp of breeze. Of the aforementioned models, the low-end LS-3 is probably my favourite. It's very small and light, runs on two AAA batteries (including rechargeable ones), and saves to a micro SD card. Its overall sound is perhaps not quite as clean as that of the LS-10/LS-11, but my experience is that it can occasionally catch distant faint calls that the others miss. Having said that, the LS-10 and LS-11 are both very good too. Both run on two AA batteries (also including rechargeables) and can save to a full-size SD card, the main differences between the two being that the LS-11 is supposedly more rugged, has longer battery life, and more internal memory (8GB, meaning that in most circumstances an SD card isn't really needed).

Other LS models I've tried are the LS-12 and LS-14, but neither seemed as sensitive as those above (this being borne out by the experiences of others), and both went straight back on eBay. It might be that they work well with an external mic, but in any case, both are also now discontinued. Newer models include the high-end LS-100 and the very small LS-P series. I have no experience of these but suspect that the LS-Ps might be worth a go.

## SETTINGS

Options vary from model to model, but these are the basic settings I use:

Mic Sensitivity:	<b>High</b>
Recording Mode:	<b>PCM</b> , set to the highest quality your zoom setting (see below) and storage space will allow. An exception might be for single recordings of more than a couple of hours, when mp3 320kbps might be more sensible.
Mic Select (LS-3 only):	<b>Central mic off</b> , as it's mainly designed for lower frequency sounds.
Rec Level:	<b>Manual</b> , and turned up as <b>high</b> as it will go.
Limiters and Compressor:	Both <b>Off</b> .
Low Cut Filter:	<b>On</b> . It's unlikely that you'll want to record anything under 250Hz.
Zoom Mic:	Usually set to <b>full zoom</b> , although strictly speaking it doesn't zoom at all – it merely attenuates the sound coming from the sides. As an aside, this also applies to expensive external shotgun mics, but not to parabolic reflectors (see below). In any case, full 'zoom' is still quite forgiving when you're pointing off-centre. Note that having zoom activated limits your maximum PCM quality to 44.1kHz, 16 bit, but in reality that's not a problem.

## METHOD

Ideally, I place the recorder pointing upwards at about 45° and in the direction from which birds are expected to arrive. However, even with a windshield it's essential to keep the recorder as much out of the wind as is possible. Also, in order to avoid picking up your own noises and interference from mobile phones etc., it's best to place it a few metres away from where you're stood. Perhaps more important than any of these though is to **have the recorder running all the time**. By running, I mean actually recording. Then, assuming that there's been a sound you'd like to hear again, you can speak into the recorder saying what it was, then switch it off, and the sound file will be automatically saved, all in the space of a few seconds. It can then be switched back on, and the process begins again.

Needless to say, there are often days when there's little or nothing of interest to be heard, and in such cases, to avoid having to deal with cumbersome file sizes, I tend to stop the recorder every 30 minutes or so and delete that particular file before starting a new recording.

## SOFTWARE, SONOGRAMS ETC

I won't go into sonograms here, except to say that they can be produced with programs such as Audacity and Raven Lite, both of which are freely available online. Of course, it might be that all you want to do is save or have another listen to something you heard, in which case you could get away with no software at all.

## PARABOLIC REFLECTOR MICS?

Unlike other mic systems, parabolic reflectors are genuinely able to 'magnify' faint and distant sounds. Assuming they have a 3.5 mm mini-jack connector, they are also fully compatible with the recorders mentioned above. However, they do have a few downsides, at least on vismig watches. Firstly, their 'field of view' is very narrow, so to take full advantage of their capabilities they must be pointing in exactly the right direction. This means that for vismig use they're at their most productive when hand-

held, which more or less precludes the simultaneous use of bins or scope. That said, a static parabolic mic can sometimes get lucky and have an interesting bird flying over and calling directly in its line of fire. Also (say in the case of a distant flock of finches) it might be possible to quickly pick it up and point it in the right direction and opportunistically capture calls which were otherwise inaudible. Both of these things do occasionally happen.

Perhaps the main prohibitive factor though, is cost. I use an Italian Dodotronic set-up, which even at half the price of the Swedish Telingas still seemed ridiculously expensive. No doubt this is the reason why some sound recordists resort to building their own out of umbrellas, dustbin lids etc, sometimes to good effect. Recently, what might be a compromise solution has become available in the form of 50 cm parabolic dishes produced by a company in Cheshire and currently selling on eBay and their own website for around £60. However, it's likely that these would require some modifications (e.g. a better mic) in order to reach anywhere near the standard of the Telinga and Dodotronic designs.

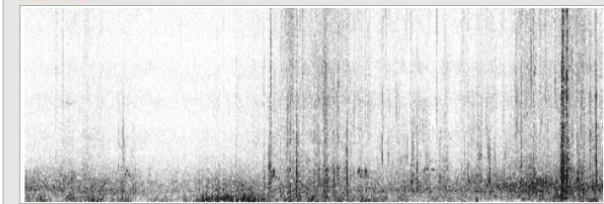
### SO SHOULD I BOTHER GETTING A RECORDER?

Yes! Or even better, get two or three and have them all running at the same time, pointing in different directions. Even if you're a whizz-kid with calls, I'm pretty sure it'll still add a whole new dimension to the vismig experience. Below are a few examples of recordings made at Harden on vismig watches. And finally, many thanks to Clive McKay for help with pulling together the final draft of this note.

#### [XC440000 Eurasian Dotterel \(\*Charadrius morinellus\*\)](#)

**XC440000 · Eurasian Dotterel · *Charadrius morinellus***

XC440000 🗣️



0:00 0:12

Eurasian Dotterel (*Charadrius morinellus*) · flight call  
David Pennington

**Recording data**

**Recordist** David Pennington

**Date** 2018-09-29

**Time** 07:20

**Latitude** 53.567

**Longitude** -1.8697

**Location** Isle of Skye Quarry, Holmfirth, West Yorkshire, England

**Country** United Kingdom

**Elevation** 450 m

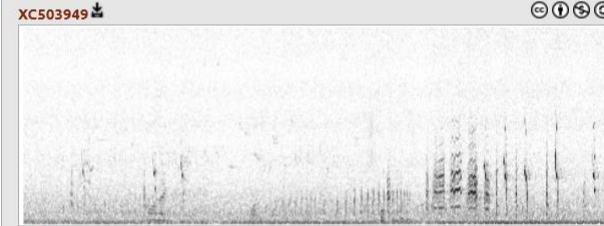
**Background** none

#### [XC503949 Peregrine Falcon \(\*Falco peregrinus\*\)](#)

Territorial interaction type “*ee-chip*” calls from unseen birds overhead

**XC503949 · Peregrine Falcon · *Falco peregrinus***

XC503949 🗣️



0:00 0:26

Peregrine Falcon (*Falco peregrinus*) · call, life stage uncertain, sex uncertain  
David Pennington

**Recording data**

**Recordist** David Pennington

**Date** 2019-10-23

**Time** 08:45

**Latitude** 53.5337

**Longitude** -1.7832

**Location** Harden Quarries, Penistone, South Yorkshire, England

**Country** United Kingdom

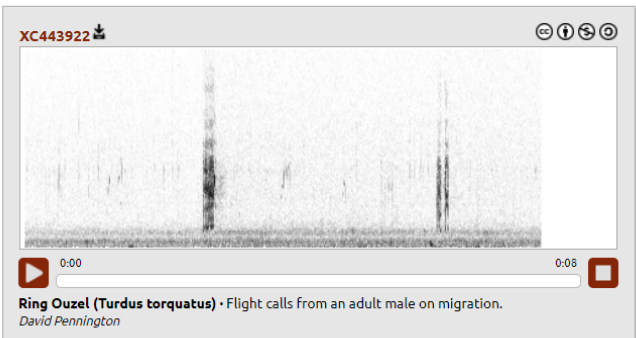
**Elevation** 400 m

**Background** Willow Ptarmigan (*Lagopus lagopus*)  
Common Chaffinch (*Fringilla coelebs*)

[XC443922 Ring Ouzel \(\*Turdus torquatus\*\)](#)

Flight calls from a male on migration

**XC443922 · Ring Ouzel · *Turdus torquatus***



Recording data

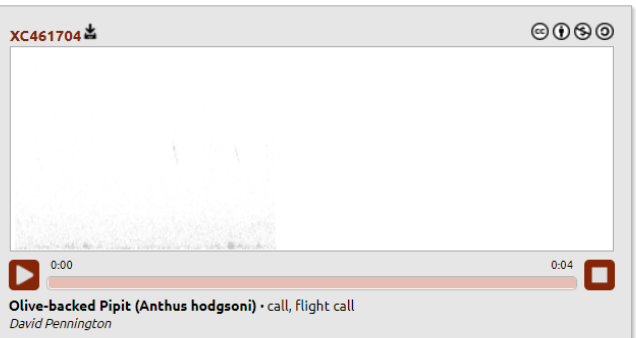
Recordist	David Pennington
Date	2018-09-24
Time	09:00
Latitude	53.5337
Longitude	-1.7832
Location	Harden Quarries, Penistone, South Yorkshire, England
Country	United Kingdom
Elevation	400 m
Background	none

Ring Ouzel (*Turdus torquatus*) · Flight calls from an adult male on migration.  
David Pennington

[XC461704 Olive-backed Pipit \(\*Anthus hodgsoni\*\)](#)

Unseen migrant initially assumed to be Tree Pipit until I listened to the recording. ID eventually confirmed using Ralph Martin's sonogram analysis formula (see the avesrares website). This record is still under consideration by the YNU records committee.

**XC461704 · Olive-backed Pipit · *Anthus hodgsoni***



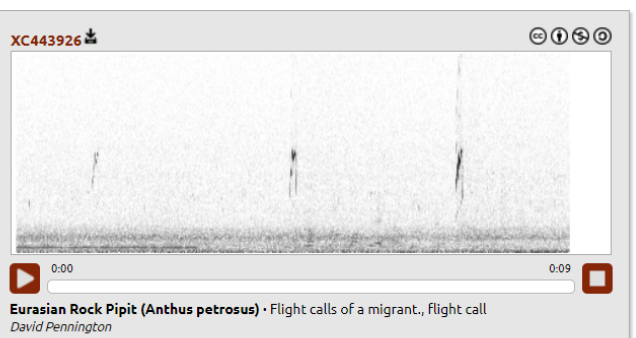
Recording data

Recordist	David Pennington
Date	2017-10-09
Time	08:05
Latitude	53.5337
Longitude	-1.7832
Location	Harden Quarries, Penistone, South Yorkshire, England
Country	United Kingdom
Elevation	400 m
Background	none

Olive-backed Pipit (*Anthus hodgsoni*) · call, flight call  
David Pennington

[XC443926 Eurasian Rock Pipit \(\*Anthus petrosus\*\)s](#)

**XC443926 · Eurasian Rock Pipit · *Anthus petrosus***



Recording data

Recordist	David Pennington
Date	2018-10-11
Time	08:00
Latitude	53.5337
Longitude	-1.7832
Location	Harden Quarries, Penistone, South Yorkshire, England
Country	United Kingdom
Elevation	400 m
Background	none

Eurasian Rock Pipit (*Anthus petrosus*) · Flight calls of a migrant., flight call  
David Pennington