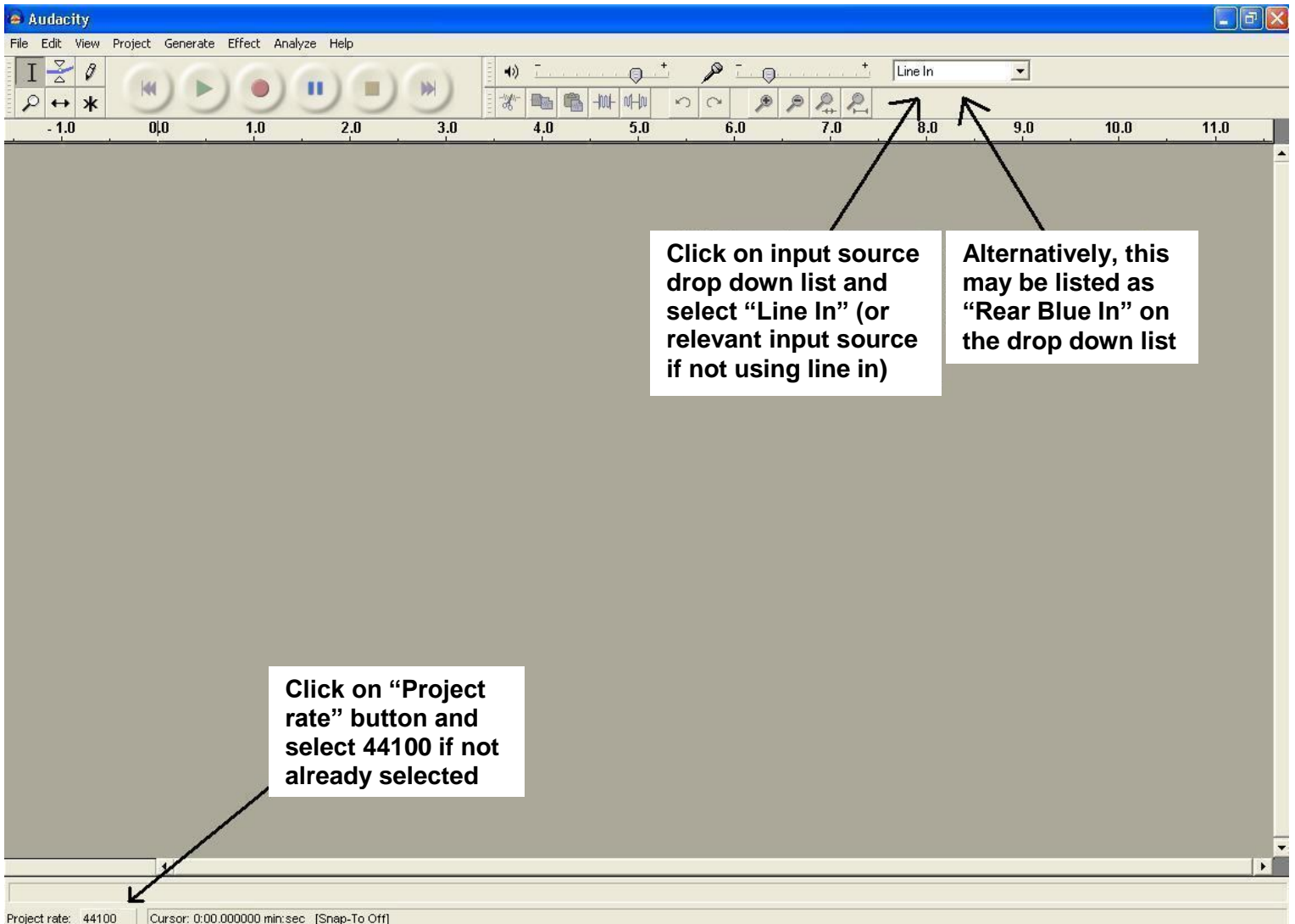




Transferring mini disc recordings onto your computer using Audacity®

Audacity is available to download for free from <http://audacity.sourceforge.net/>.

1. Connect your mini disc recorder to your computer using a stereo audio lead.
2. Ideally plug the audio lead into the line-out socket on your mini disc recorder. If it doesn't have a line-out socket then use the headphone socket.
3. Ideally plug the other end of the audio lead into the line-in socket (normally coloured blue) on your computer. The microphone socket (normally coloured pink) should also work.
4. Open Audacity and set to correct input source and sampling rate as shown below.



The screenshot shows the Audacity software interface. The top menu bar includes File, Edit, View, Project, Generate, Effect, Analyze, and Help. Below the menu bar is a toolbar with various icons for recording, editing, and playback. The main workspace is a large grey area with a timeline at the bottom. The timeline shows a recording from -1.0 to 11.0 seconds. The input source is set to "Line In" in a dropdown menu. The project rate is set to 44100 Hz.

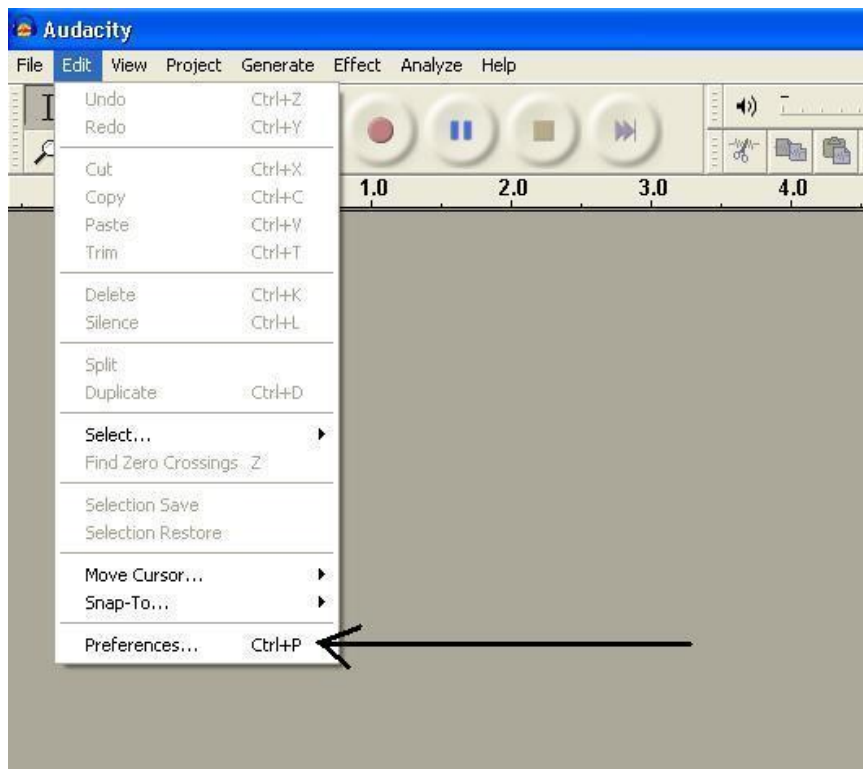
Click on input source drop down list and select "Line In" (or relevant input source if not using line in)

Alternatively, this may be listed as "Rear Blue In" on the drop down list

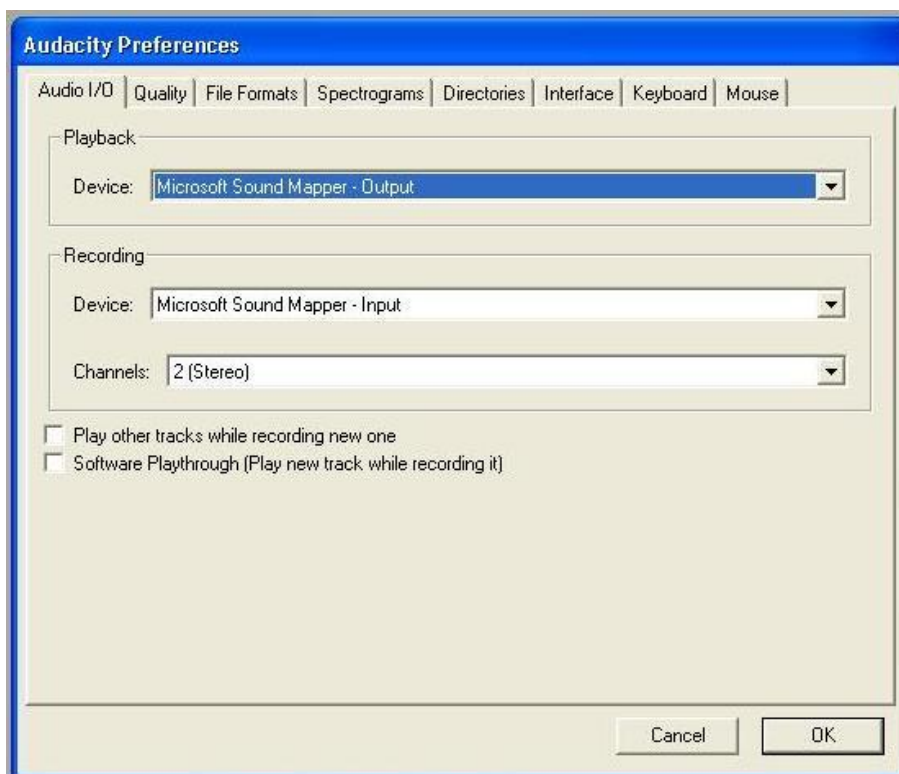
Click on "Project rate" button and select 44100 if not already selected

Project rate: 44100 Cursor: 0:00.000000 min:sec [Snap-To Off]

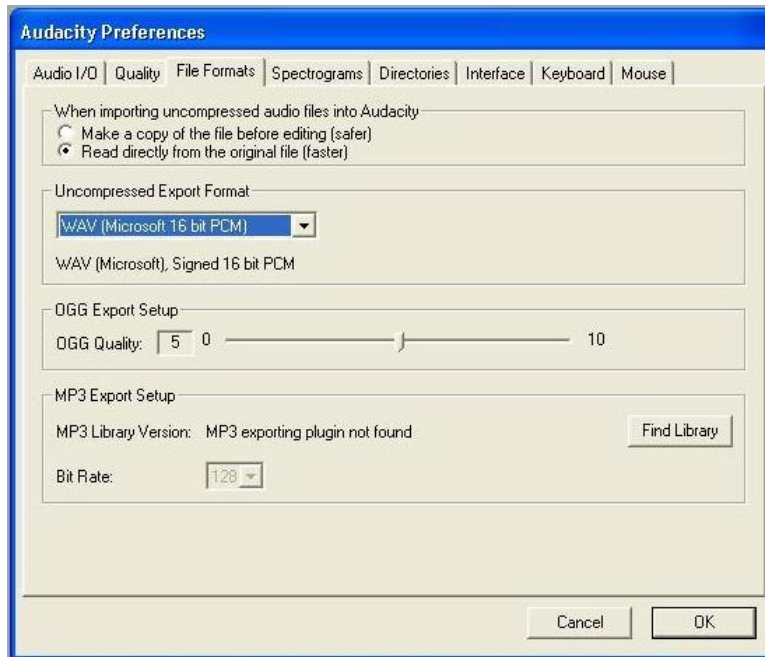
5. In the top menu bar click on "Edit" and select "Preferences".



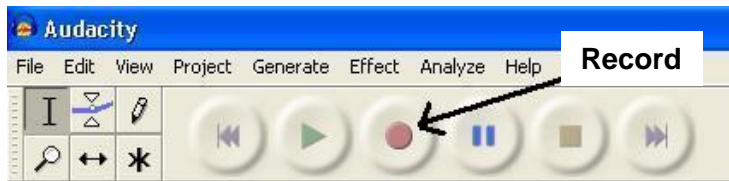
6. Click on the "Audio I/O" tab and in the "Channels" drop down list, select "2 (Stereo)". If you are using a single channel frequency division detector (e.g. the BatBox Baton), or you have two channels and both were set to frequency division (an option with Ciel heterodyne/frequency division detectors) then select "1 (Mono)" as this will reduce the file sizes and there is no risk of recording the wrong channel.
NB The Playback/Recording Device shown below is Microsoft Sound Mapper but you may have different options listed. Try the default device first and if that doesn't work then try selecting other options from the drop-down list.



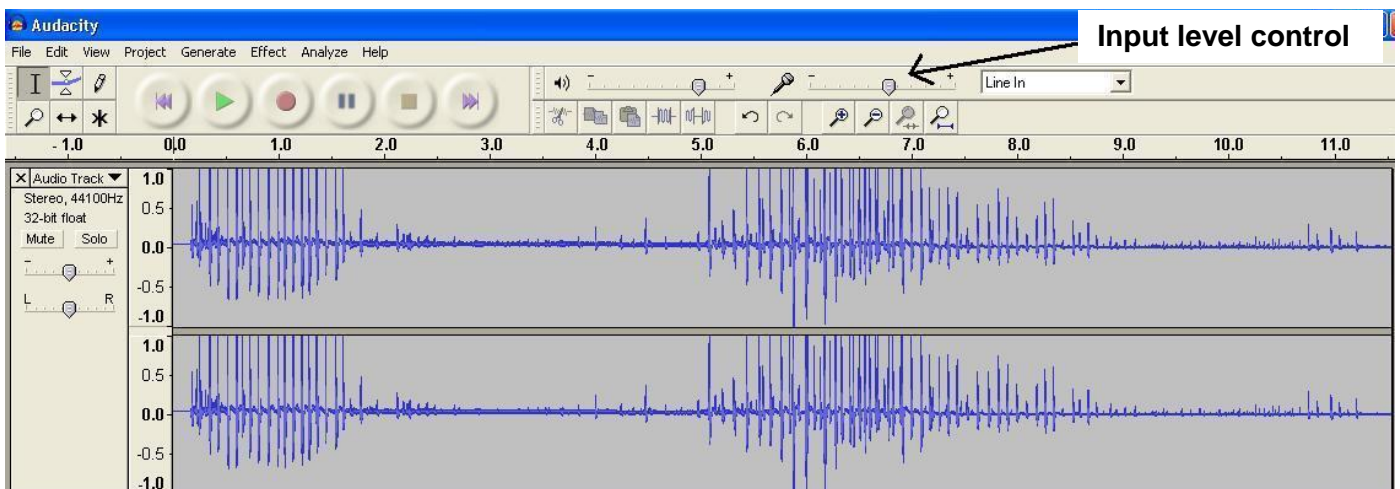
- Click on the "File Formats" tab. In the "Uncompressed Export Format" drop down list, select "WAV (Microsoft 16 bit PCM)". Click "OK".



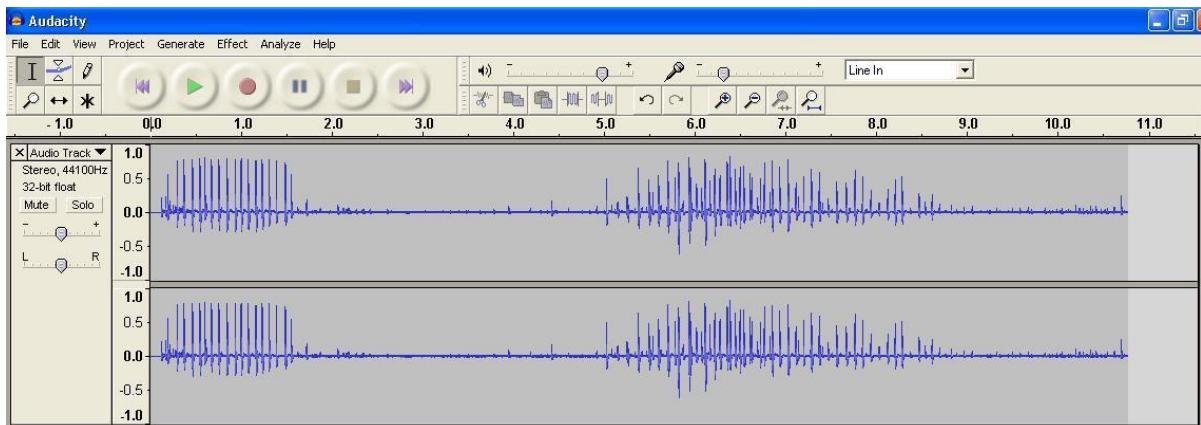
- You are now ready to begin feeding in sounds from your mini disc. If your mini disc recorder gives you the option then set your mini disc "Audio out" setting to "Line out" rather than "Headphone".
- Before you begin the process of transferring your mini disc recordings onto your computer it is advisable to make a test recording to check that the input level is set correctly. Locate a section in your mini disc recordings where some bat sounds were recorded loud and clear. While this is playing, click the Record button in Audacity.



- Keep an eye on the recording levels. If the top and/or bottom of the oscillogram spikes are disappearing off the scale (as in the example below) then you will need to slide the input level control (marked with an arrow below) to a lower level.



- When the input level is set correctly, the oscillogram should look something like the example below. The spikes are showing clearly on either side of the 0.0 line without going off the scale. If the spikes remain well below 0.5 on the scale (and you are sure the bat calls you are feeding in were recorded reasonably loudly onto your mini disc) then it is advisable to set the input level slightly higher.



- Now that you have the input settings adjusted correctly you can begin feeding your mini disc recordings into Audacity and saving them as .wav files for analysis.
- For NBMP surveys you will need to create a .wav file for each spot and/or walk on your survey route. Refer to your field recording sheet or notes to check which mini disc tracks correspond to which walks/spots. Name the files after the spot and/or walk they correspond to, e.g. "Walk 1.wav", "Walk 2.wav" etc. If your survey consisted of alternating walks and spots then it may help to number the file names in the order the walks/spots occurred, e.g. "01 Walk 1.wav", "02 Spot 1.wav", "03 Walk 2.wav", "04 Spot 2.wav" etc.
- To finish recording your file, click the Stop button.



- Click on "File" then "Export As Wav" and save your file (see 13. above for tips on naming files for NBMP surveys). Your file can now be opened and analysed using sound analysis software.



For NBMP surveys, even if you are analysing your recordings yourself, please send us a CD containing all the .wav files from your surveys so that we can carry out species identification spot checks and do further analysis in future.

Please save the .wav files in folders named after the survey site code (or site name) and survey date.

Please contact us at nbmp@bats.org.uk if you need additional information or advice.