

AviaNZ + BirdNET

Cheat Sheet

Use the **Manual Processing** mode to look at, listen to, and manually annotate individual audio files, to train your own recognisers and to classify your recordings with BirdNET.

Basic Actions and Navigation

A usual workflow with BirdNET in AviaNZ would consist of the following steps:

- ▷ Open a folder with audio files to classify
- ▷ Classify the recordings with BirdNET
- ▷ Manually control the results of BirdNET, i.e. confirm, adjust, delete, label segments

Basic Actions

Open file	CTRL+O
Restart program	CTRL+R
Quit program	CTRL+Q
Help/Open manual	CTRL+H
Spectrogram parameters	CTRL+C

Navigation

Navigate in the File List

To navigate through the file list, use your mouse by double clicking on the file of interest or use the following shortcuts:

Next file	DOWN
Previous file	UP
Next file (include invisible)	ALT+DOWN
Previous file (include invisible)	ALT+UP

Navigate in the Audio File

To navigate within an audio file, use your mouse to click and drag the blue box, click on the boxes below the overview spectrogram or use the following shortcuts to navigate to the section of interest:

Jump forward	RIGHT
Jump backward	LEFT
Jump to next page	SHIFT+RIGHT
Jump to previous page	SHIFT+LEFT
Jump to next segment	CTRL+RIGHT

Segments and Review Process

Manipulate Segments

Create

Choose in the interface settings whether to use left or right mouse button to create segments like this:

Create unlabeled	CLICK+DRAG
Create uncertain	CTRL+CLICK+DRAG
Create with last species label	SHIFT+CLICK+DRAG

Move, Resize and Delete

Segments can be moved by clicking and dragging. To resize do the same on the edges.

Delete a segment by selecting and using the “Delete segment” Button or with the following shortcuts:

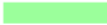


Delete selected segment	DEL
Delete all segments	CTRL+D

Review Results of Classification

File Icons

The file icon color indicates the state of segments in the file for the selected species.

The grey frame marks the maximum certainty value of the segments for selected species.

-  ▷ cert. of every segment 100%
-  ▷ max. cert. of segments <100%
-  ▷ segments with cert. 0% present

Reduce Filelist

Reduce the filelist by selecting the species of interest in the dropdown menu and ticking the box next to it. Adapt the minimum certainty value to further shorten the filelist.

Use the following shortcuts to quickly review the detections of the selected species:

Jump to next segment	CTRL+RIGHT
Confirm labels	ENTER
Toggle label type	TAB
Playback sound	SPACE
Playback selected segment	CTRL+SPACE

BirdNET

Start: Menu → Recognisers → Classify recordings with BirdNET

Parameters

Latitude	Recording location latitude; Values in [-90; 90]; Defaults to -1.00.
Longitude	Recording location longitude; Values in [-180; 180]; Defaults to -1.00.
Week	Week of the recording; Values in [0; 48]; Divide year into 48 weeks — 4 weeks per month; Defaults to 0.
Select custom species list	A “white list” that includes the species of interest; Must be a subset of the original species-lists of BirdNET-Lite or BirdNET-Analyzer respectively and in the selected language; Find these files in the installation directory of AviaNZ under labels.
Language of species labels	Self-explanatory; Not 100% of the labels are translated in every language.
Overlap	BirdNET cuts your recordings into chunks of 3 s length internally; Overlap defines the number of seconds the single segments overlap; Values in [0.0; 2.9]; Defaults to 0.0.
Sensitivity	Detection sensitivity; Higher values result in higher sensitivity; Values in [0.5; 1.5]; Defaults to 1.0.
Minimum certainty	Minimum certainty value in the output; Values in [0.01; 0.99]; Defaults to 0.1.
Number of threads	Number of threads used for calculation; Defaults to the number of available cores of the CPU.
Calculate moving average exp.	If set, the original certainty values are smoothed and pooled with a moving mean exponential average with a width of 3 chunks; Used to potentially remove some false positives; Described here: https://onlinelibrary.wiley.com/doi/10.1111/2041-210X.13571
Batchsize	Only BirdNET-Analyzer; Number of chunks that are analysed concurrently; May influence the processing time but not the output; Defaults to 1.
Threshold for location filter	Only BirdNET-Analyzer; If Latitude, Longitude and Week are set BirdNET-Analyzer calculates a custom species list; Species with a calculated value below this threshold are not included in the output list; Defaults to: 0,03.

ATTENTION: Most of the parameters are the same for both classifiers BirdNET-Lite and BirdNET-Analyzer, but there are a few distinct differences. Whereas BirdNET-Lite accepts both, coordinates, week **and** a custom species list, BirdNET-Analyzer accepts only either coordinates and week **or** a custom species list. This is because BirdNET-Analyzer calculates a custom species list if coordinates and week are set. For that the threshold for the location filter can be set additionally.