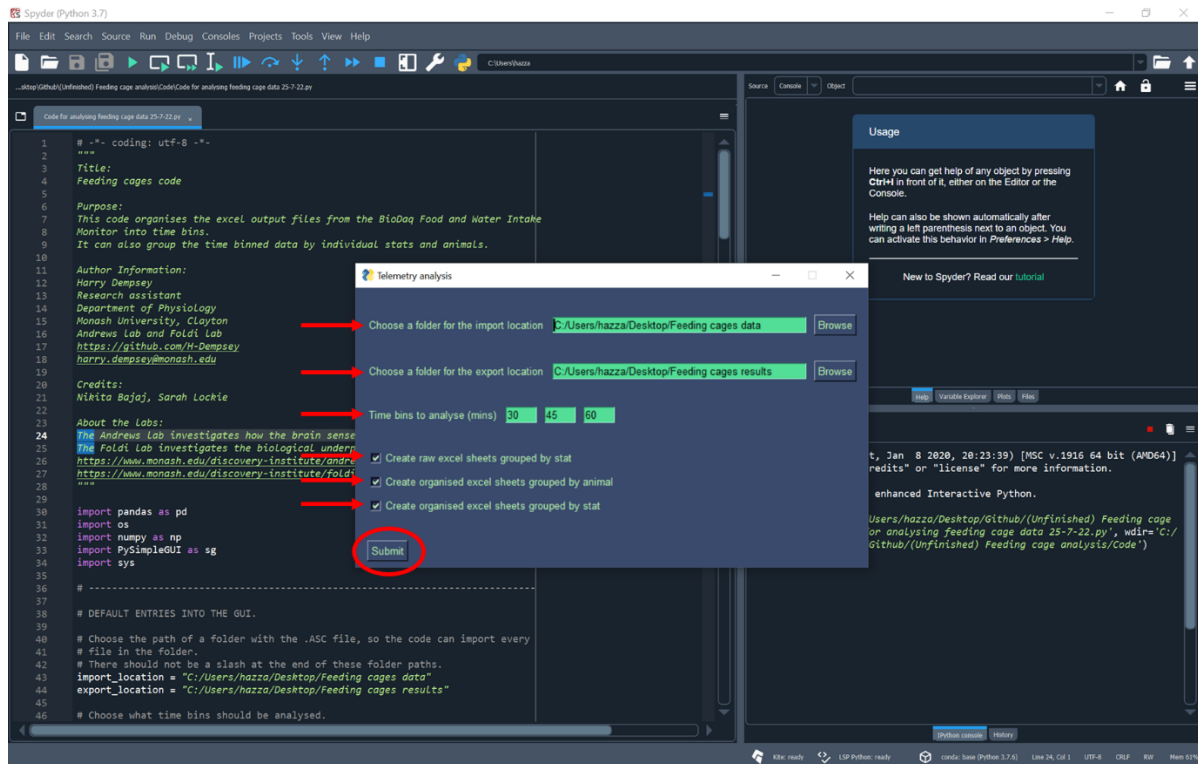


Guide to the feeding cages code

Purpose: This code organises the excel output files from the BioDaq Food and Water Intake Monitor into time bins. It can also group the time binned data by individual stats and animals.

1. Select all the options for the time bins analysis and click “submit”. Here is an explanation of all the options:



- **Import location:** this is the folder that contains the raw excel file (ensure there are no other excel files there). You can also have multiple excel files, and the code will analyse each of them.
- **Export location:** the folder to export the time binned results.
- **Time bins to analyse (mins):** export many of the types of results below for each listed time bin.
- **Create raw excel sheets grouped by stat:** create the following excel file. This is the raw data sheet “PSC by period” that is separated by animals or “PSC” number. This is not time binned.

AutoSave Alex redo gfral mice.xlsx analysed (overall) Search (Alt+Q) Harry Dempsey

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M6 0

Animal numbers	Exp. day	Period	Time	Bout food weight (grams)	Bout frequency	Bout duration (secs)	% Timen Bouts	Seconds/Bout	Grams/Bout	MealGrams	Meals	MealSeconds	% Timen Meals	Seconds/Meal
6	0	0	2022-05-27 19:00:00	0.01	3	125	13.89	41.67	0	0	0	0	0	0
6	0	1	2022-05-27 19:15:00	0.01	3	97	10.78	32.33	0	0	0	0	0	0
6	0	2	2022-05-27 19:30:00	0	0	0	0	0	0	0	0	0	0	0
6	0	3	2022-05-27 19:45:00	0	0	0	0	0	0	0	0	0	0	0
6	0	4	2022-05-27 20:00:00	0	0	0	0	0	0	0	0	0	0	0
6	0	5	2022-05-27 20:15:00	0	0	0	0	0	0	0	0	0	0	0
6	0	6	2022-05-27 20:30:00	0	0	0	0	0	0	0	0	0	0	0
6	0	7	2022-05-27 20:45:00	0	0	0	0	0	0	0	0	0	0	0
6	0	8	2022-05-27 21:00:00	0	0	0	0	0	0	0	0	0	0	0
6	0	9	2022-05-27 21:15:00	0	0	0	0	0	0	0	0	0	0	0
6	0	10	2022-05-27 21:30:00	0	2	115	12.78	57.5	0	0	0	0	0	0
6	0	11	2022-05-27 21:45:00	0	1	27	3	27	0	0	0	0	0	0
6	0	12	2022-05-27 22:00:00	0.02	4	249	27.67	62.25	0.01	0	0	0	0	0
6	0	13	2022-05-27 22:15:00	0.01	3	208	23.11	69.33	0	0	0	0	0	0
6	0	14	2022-05-27 22:30:00	0	0	0	0	0	0	0	0	0	0	0
6	0	15	2022-05-27 22:45:00	0	1	37	4.11	37	0	0	0	0	0	0
6	0	16	2022-05-27 23:00:00	0.05	2	139	15.44	69.5	0.03	0.14	1	1100	122.22	110
6	0	17	2022-05-27 23:15:00	0.09	5	392	43.56	78.4	0.02	0	0	0	0	0
6	0	18	2022-05-27 23:30:00	0	0	0	0	0	0	0	0	0	0	0
6	0	19	2022-05-27 23:45:00	0	2	54	6	27	0	0	0	0	0	0
6	0	20	2022-05-28 00:00:00	0	1	95	10.56	95	0	0	0	0	0	0
6	0	21	2022-05-28 00:15:00	0.08	3	171	19	57	0.03	0	0	0	0	0
6	0	22	2022-05-28 00:30:00	0.01	3	62	6.89	20.67	0	0	0	0	0	0
6	0	23	2022-05-28 00:45:00	0	0	0	0	0	0	0	0	0	0	0
6	0	24	2022-05-28 01:00:00	0.01	1	13	1.44	13	0.01	0	0	0	0	0
6	0	25	2022-05-28 01:15:00	0	0	0	0	0	0	0	0	0	0	0
6	0	26	2022-05-28 01:30:00	0	0	0	0	0	0	0	0	0	0	0
6	0	27	2022-05-28 01:45:00	0	0	0	0	0	0	0	0	0	0	0
6	0	28	2022-05-28 02:00:00	0	0	0	0	0	0	0	0	0	0	0
6	0	29	2022-05-28 02:15:00	0	0	0	0	0	0	0	0	0	0	0
6	0	30	2022-05-28 02:30:00	0	0	0	0	0	0	0	0	0	0	0
6	0	31	2022-05-28 02:45:00	0	0	0	0	0	0	0	0	0	0	0
6	0	32	2022-05-28 03:00:00	0	0	0	0	0	0	0	0	0	0	0
6	0	33	2022-05-28 03:15:00	0	0	0	0	0	0	0	0	0	0	0
6	0	34	2022-05-28 03:30:00	0	0	0	0	0	0	0	0	0	0	0

Animal 6 Animal 12 Animal 21 Animal 23

- **Create organised excel sheets grouped by animal:** create the following excel file. This creates time binned data for the stats bout food weight, frequency and duration. The sheets are separated by animals.

AutoSave Alex redo gfral mice.xlsx analysed (30 min time bins grouped by animal) Search (Alt+Q) Harry Dempsey

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A1 Date and time

Date and time	Light/dark phase	Time bins (mins)	Bout food weight (grams)	Bout frequency	Bout duration (secs)
2022-05-27 19:00:00	Dark	0	0.01	3	125
2022-05-27 19:30:00	Dark	30	0.01	3	97
2022-05-27 20:00:00	Dark	60	0	0	0
2022-05-27 20:30:00	Dark	90	0	0	0
2022-05-27 21:00:00	Dark	120	0	0	0
2022-05-27 21:30:00	Dark	150	0	2	115
2022-05-27 22:00:00	Dark	180	0.02	5	276
2022-05-27 22:30:00	Dark	210	0.01	3	208
2022-05-27 23:00:00	Dark	240	0.05	3	176
2022-05-27 23:30:00	Dark	270	0.09	5	392
2022-05-28 00:00:00	Dark	300	0	3	149
2022-05-28 00:30:00	Dark	330	0.09	6	233
2022-05-28 01:00:00	Dark	360	0.01	1	13
2022-05-28 01:30:00	Dark	390	0	0	0
2022-05-28 02:00:00	Dark	420	0	0	0
2022-05-28 02:30:00	Dark	450	0	0	0
2022-05-28 03:00:00	Dark	480	0	0	0
2022-05-28 03:30:00	Dark	510	0	0	0
2022-05-28 04:00:00	Dark	540	0	0	0
2022-05-28 04:30:00	Dark	570	0	2	22
2022-05-28 05:00:00	Dark	600	0.03	3	169
2022-05-28 05:30:00	Dark	630	0.05	4	218
2022-05-28 06:00:00	Dark	660	0	0	0
2022-05-28 06:30:00	Light	690	0	0	0
2022-05-28 07:00:00	Light	720	0	0	0
2022-05-28 07:30:00	Light	750	0.04	3	136
2022-05-28 08:00:00	Light	780	0	2	142
2022-05-28 08:30:00	Light	810	0.01	1	10
2022-05-28 09:00:00	Light	840	0	1	59
2022-05-28 09:30:00	Light	870	0	0	0
2022-05-28 10:00:00	Light	900	0	0	0
2022-05-28 10:30:00	Light	930	0	0	0
2022-05-28 11:00:00	Light	960	0	0	0

Animal 6 Animal 12 Animal 21 Animal 23

- **Create organised excel sheets grouped by stat:** create the following excel file. This creates time binned data for each animal. The sheets are separated by the stats bout food weight, frequency and duration.

AutoSave [On] Alex redid giral mice.xlsx analysed (30 min time bins grouped by stat) Harry Dempsey

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Calibri 11

General

Conditional Formatting

Insert

Format as Table

Cell Styles

Number

Styles

Cells

Editing

Analysis

Sensitivity

Comments

Share

Clipboard

Font

Alignment

Number

Styles

Cells

Editing

Analysis

Sensitivity

Ready Accessibility: Good to go

A1

Date and time

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	Date and time	Light/dark phase	Time bins (mins)	6	12	21	23														
2	2022-05-27 19:00:00	Dark	0	0.01	0	0	0.03														
3	2022-05-27 19:30:00	Dark	30	0.01	0	0	0.01														
4	2022-05-27 20:00:00	Dark	60	0	0	0.02	0.02														
5	2022-05-27 20:30:00	Dark	90	0	0.03	0	0.03														
6	2022-05-27 21:00:00	Dark	120	0	0.01	0	0.02														
7	2022-05-27 21:30:00	Dark	150	0	0.02	0	0.04														
8	2022-05-27 22:00:00	Dark	180	0.02	0.04	0.01	0.07														
9	2022-05-27 22:30:00	Dark	210	0.01	0.02	0.02	0.05														
10	2022-05-27 23:00:00	Dark	240	0.05	0.05	0	0.01														
11	2022-05-27 23:30:00	Dark	270	0.09	0.03	0.19	0														
12	2022-05-28 00:00:00	Dark	300	0	0.03	0.03	0														
13	2022-05-28 00:30:00	Dark	330	0.09	0	0	0.04														
14	2022-05-28 01:00:00	Dark	360	0.01	0	0	0.06														
15	2022-05-28 01:30:00	Dark	390	0	0	0	0.01														
16	2022-05-28 02:00:00	Dark	420	0	0	0	0														
17	2022-05-28 02:30:00	Dark	450	0	0	0	0														
18	2022-05-28 03:00:00	Dark	480	0	0	0	0														
19	2022-05-28 03:30:00	Dark	510	0	0	0	0														
20	2022-05-28 04:00:00	Dark	540	0	0	0.01	0														
21	2022-05-28 04:30:00	Dark	570	0	0.05	0	0.05														
22	2022-05-28 05:00:00	Dark	600	0.03	0	0	0.05														
23	2022-05-28 05:30:00	Dark	630	0.05	0	0	0.02														
24	2022-05-28 06:00:00	Dark	660	0	0	0.02	0.08														
25	2022-05-28 06:30:00	Light	690	0	0	0.02	0.1														
26	2022-05-28 07:00:00	Light	720	0	0	0.02	0														
27	2022-05-28 07:30:00	Light	750	0.04	0.02	0.01	0														
28	2022-05-28 08:00:00	Light	780	0	0.02	0	0														
29	2022-05-28 08:30:00	Light	810	0.01	0.05	0	0														
30	2022-05-28 09:00:00	Light	840	0	0	0	0														
31	2022-05-28 09:30:00	Light	870	0	0.04	0	0														
32	2022-05-28 10:00:00	Light	900	0	0	0	0														
33	2022-05-28 10:30:00	Light	930	0	0	0	0														
34	2022-05-28 11:00:00	Light	960	0	0	0	0														

Bout food weight (grams) Bout frequency Bout duration (secs)