| Package | Role | Main functions |
|---|---|---|
| behavr | utilities | `behavr()`, `meta()`,`setbehavr()`,`setmeta()` |
| | metadata operations **see S1 Fig.** | `xmd()`, `rejoin()` |
| | merge and check several tables | `bind_behavr_list()`, `stitch_on()` |
| ggetho | interface to ggplot (**see main text**) | `ggetho()` |
| | tile and "bar tile" plots (***e.g.* Fig. 3 and 4A**) | `stat_tile_etho`, `stat_bar_tile_etho()` |
| | population trends as lines and error bars | `stat_pop_etho()` |
| | circadian biology utilities (***e.g.* Fig. 4 and 5A**) | `stat_ld_annotations()`, `geom_peak()` |
| | smart time scales (auto-adjust labels and ticks) | `scale_x_days()`, `scale_x_hours()`, ... |
| damr | "link" metadata to DAM files (**see main text**) | `link_dam_metadata()` |
| | "load" relevant DAM (2 or 5) data as behavr. Detects daylight-saving bugs and such | `load_dam()` |
| scopr | "link" metadata to ethoscope files | `link_ethoscope_metadata()` |
| | "load" relevant ethoscope data as behavr | `load_ethoscope()` |
| | utilities (list files, fetch remote data, ) | `experiment_info()`, `list_result_files()`, ... |
| zeitgebr | compute periodograms (AC, $\chi^2$,LS,Fourrier) | `*_periodogram()` (* ∈ {`ac`,`chi_sqr`,`ls`,`fourrier`}) |
| | preprocess and standardise methods | `periodogram()` |
| | find peak periods in periodograms (***e.g.* Fig. 4 and 5A**) | `find_peaks()` |
| sleepr | motion thresholding/velocity detection | `motion_detectors()` |
| | sleep definition using N minute rule | `sleep_annotation()` |
| | data curation: dead animals scored as asleep | `curate_dead_animals()` |
| | discrete behavioural state bout architecture | `bout_analysis()` |