Prawnz field experiment metadata

This document provides context and field definitions for three datasheets associated with the prawn post-release survival experiment.

‘prawnz\_trial\_data\_entry.csv’

**trial\_number** – the trial number (unique number for each trial). The trial number as entered in the spreadsheet is equivalent to the trial number on the paper datasheet minus 5. This is because we conducted 5 pilot trials which are not included in the final data. For example, trial #10 as indicated on the paper datasheet (see scanned datasheets) would have been entered as trial #10 in the data entry spreadsheet.

**site\_name** – unique name of site, based on location

**initial\_set\_date** – date that string of 10 traps was set to catch prawns for experiment.

**initial\_set\_time –** time of day that string of 10 traps was set.

**experiment\_set\_date –** date that string of 10 traps was hauled, experiment was conducted, and prawns were re-set back down in a string of 6 traps with ends tied shut.

**experiment\_set\_time** – time of day of hauling string of 10 traps.

**exp\_set\_lat\_1** – latitude of the start of the string of 10 traps.

**exp\_set\_lon\_1** – longitude of the start of the string of 10 traps.

**exp\_set\_depth\_1** – depth (fathoms) of the start of the string of 10 traps (from boat depth sounder).

**exp\_set\_lat\_2** – latitude of the end of the string of 10 traps.

**exp\_set\_lon\_2** – longitude of the end of the string of 10 traps.

**exp\_set\_depth\_2** – depth (fathoms) of the end of the string of 10 traps (from boat depth sounder).

**exp\_set\_temp\_air** – air temperature (deg C) at the start of the experiment (measured via YSI or thermometer).

**exp\_set\_temp\_0m** – water temperature (deg C) at 0 m at start of experiment (measured via YSI or thermometer).

**exp\_set\_sal\_0m** – water salinity (ppt) at 0 m at start of experiment (measured via YSI or refractometer).

**exp\_set\_temp\_10m** – water temperature (deg C) at 10 m at start of experiment (measured via YSI).

**exp\_set\_sal\_10m** – water salinity (ppt) at 10 m at start of experiment (measured via YSI).

**exp\_set\_tote\_temp** – partway through the field experiment, there was a big outflow of freshwater and the salinity became very low. In order to maintain consistent salinity across trials, we built a pump and pumped water from below the freshwater layer into the tote where prawns were kept. We started measuring and recording the tote temperature (deg C) and salinity (ppt) in the tote.

**exp\_set\_tote\_sal** – partway through the field experiment, there was a big outflow of freshwater and the salinity became very low. In order to maintain consistent salinity across trials, we built a pump and pumped water from below the freshwater layer into the tote where prawns were kept. We started measuring and recording the tote temperature (deg C) and salinity (ppt) in the tote.

**cloud\_cover\_percent** – at the beginning of the experiment, we sometimes recorded % cloud cover (0%, 25%, 50%, 75%, 100%).

**experiment\_haul\_date** – date that we re-hauled the experimental string of 6 traps to evaluate survival. Typically, the day after experiment set date.

**experiment\_haul\_time** – time of day that we re-hauled the experimental string of 6 traps.

**exp\_haul\_lat\_1** – latitude of the start of the string of 6 experimental traps.

**exp\_haul\_lon\_1** – longitude of the start of the string of 6 experimental traps.

**exp\_haul\_depth\_1­** – depth (fathoms) of the start of the string of 6 experimental traps.

**exp\_haul\_lat\_2** – latitude of the end of the string of 6 experimental traps.

**exp\_haul\_lon\_2** – longitude of the end of the string of 6 experimental traps.

**exp\_haul\_depth\_2** – depth (fathoms) of the end of the string of 6 experimental traps

**exp\_haul\_temp\_air** – air temperature (deg C) during processing of the end of the experiment.

**exp\_haul\_temp\_0m** – water temperature (deg C) at 0 m during hauling of the end of the experiment.

**exp\_haul\_sal\_0m** – water salinity (ppt) at 0 m during hauling of the end of the experiment.

**exp\_haul\_temp\_10m** – water temperature (sal) at 10 m during hauling of the end of the experiment.

**exp\_haul\_sal\_10m** – water salinity (ppt) at 10 m during hauling of the end of the experiment

**exp\_haul\_tote\_temp** – partway through the field experiment, there was a big outflow of freshwater and the salinity became very low. In order to maintain consistent salinity across trials, we built a pump and pumped water from below the freshwater layer into the tote where prawns were kept. We started measuring and recording the tote temperature (deg C) and salinity (ppt) in the tote.

**exp\_haul\_tote\_sal** – partway through the field experiment, there was a big outflow of freshwater and the salinity became very low. In order to maintain consistent salinity across trials, we built a pump and pumped water from below the freshwater layer into the tote where prawns were kept. We started measuring and recording the tote temperature (deg C) and salinity (ppt) in the tote.

**immediate\_release\_number –** how many prawns were in the immediate release treatment at start of experiment

**30min\_number –** how many prawns were in the 30 min treatment at start of experiment

**1h\_number –** how many prawns were in the 60 min treatment at start of experiment

**2h\_number –** how many prawns were in the 90 min treatment at start of experiment

**bags\_out\_of\_water\_time** – what time we pulled all bags of prawns out of water to end the experiment.

**last\_trap\_set\_time –** what time we finished re-setting the string of 6 experimental traps with prawns inside them and ends tied shut.

**total\_end\_process\_time** – total end of experiment processing time (difference between bags out of water and last trap set times).

**comments** – any comments from start or end of trial

‘prawnz\_experiment\_survival\_data\_entry.csv’

**trial\_number** – the trial number (unique number for each trial). The trial number as entered in the spreadsheet is equivalent to the trial number on the paper datasheet minus 5. This is because we conducted 5 pilot trials which are not included in the final data. For example, trial #10 as indicated on the paper datasheet (see scanned datasheets) would have been entered as trial #10 in the data entry spreadsheet.

**trap\_number** – trap that the prawn went down in after experimental treatment. There were six traps so trap number ranges from 1-6. The number does not indicate the order of the traps when they were set but rather the order in which data was collected at the end of the experiment. For example, trap 2 indicates the second trap for which we collected survival data at the end of the trial. Trap numbers are consistent between reflex and survival data.

**prawn\_id** – prawn ID #

**stage** – life stage of prawn (0 = juvenile, 1 = male, 2 = transitional, 3 = female, 4 = egged female, 5 = spent female)

**length** – carapace length of prawn (mm)

**treatment** – experimental treatment (0, 30, 60, 90, or 120 mins out of water)

**dead –** 0 if alive, 1 if dead and intact

**alive** – 0 if dead or scavenged, 1 if alive

**scavenged** – 0 if alive, 1 if dead and scavenged

**comments** – comments from datasheet

‘prawnz\_experiment\_reflex\_data\_entry.csv’

**trial\_number** – the trial number (unique number for each trial). The trial number as entered in the spreadsheet is equivalent to the trial number on the paper datasheet minus 5. This is because we conducted 5 pilot trials which are not included in the final data. For example, trial #10 as indicated on the paper datasheet (see scanned datasheets) would have been entered as trial #10 in the data entry spreadsheet.

**trap\_number** – trap that the prawn went down in after experimental treatment. There were six traps so trap number ranges from 1-6. The number does not indicate the order of the traps when they were set but rather the order in which data was collected at the end of the experiment. For example, trap 2 indicates the second trap for which we collected survival data at the end of the trial. Trap numbers are consistent between reflex and survival data.

**prawn\_id** – prawn ID #

**stage** – life stage of prawn (0 = juvenile, 1 = male, 2 = transitional, 3 = female, 4 = egged female, 5 = spent female)

**treatment** – experimental treatment (0, 30, 60, 90, or 120 mins out of water)

**behaviour data** – suite of 10 behaviours assessed post-experiment. Prawns either exhibited the reflex behaviour (1) or did not (0). See Stoner et al. 2012 for details of the behaviours and methods.

**abdomen\_turgor**

**abdomen\_retraction**

**leg\_movement**

**leg\_retraction**

**maxilliped\_movement**

**maxilliped\_retraction**

**antenna**

**eye\_turgor**

**pleopods**

**mouth**

**comments** – any comments from datasheet