

Metadata for:

Wild animals suppress the spread of socially-transmitted misinformation

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Data files and descriptions: There are seven data files accompanying the manuscript (Datasets S1-S7). Metadata for these files is provided below.

(1) Dataset_S1.csv: escape event times from 42 thirty-minute recording sessions of unperturbed coral reef fish foraging areas (data shown in Figure 1A of the Main Text).

Variables:

time_series_index [units NA]: Arbitrary numeric identifier assigned to each of 42 time series.

escape_event_time_min [units minutes]: time at which each escape event began (timing of escape onset by first responder) in minutes since the start of the recording session.

(2) Dataset_S2.csv: swimming speeds of individuals during example escape event (data shown in Figure 1B of the Main Text).

Variables:

ID [units NA]: Arbitrary numeric identifier assigned to each individual. Values with the same ID are associated with the same individual.

time_ms [units milliseconds]: Time in milliseconds.

speed_bodylengths_per_sec [units body lengths second⁻¹]: Swimming speed recorded at each time point and measured in body lengths per second.

(3) Dataset_S3.csv: Turning rates of individual responders and non-responders away from neighbors during time period before, during, and directly after spontaneous escape events (data shown in Figure 2B of the Main Text).

Variables:

time_bin [units NA]: the time period and type of individual from which turning was computed. Three categorical values:

nonresponder_during: mean rate of turning toward neighbors during 200 ms prior to and following the first response of an individual in the group. Computed for individuals that did not respond.

responder_during: mean rate of turning toward neighbors during 200 ms prior to and following the first response of an individual in the group. Computed for individuals that did respond.

responder_before: mean rate of turning toward neighbors during the period > 200 ms prior to the first response of an individual in the group. Computed for individuals that did respond.

turning_rate_deg_per_sec [units degrees second⁻¹]: Mean turning rate for each individual computed over the interval. Each row represents a different individual.

(4) Dataset_S4.csv: Loom and translation stimulus values produced by first responder and perceived by other individuals (data shown in Fig. 2C-D of Main Text).

Variables:

peri_response_time_ms [units milliseconds]: mid-point of time bin for each reported median loom rate. Time zero is the time at which the first responder initiated its escape maneuver.

median_loom_deg_s [units degrees per second]: median of loom rate of first responders as perceived by neighbors.

loom_25th_percentile_deg_s [units degrees per second]: 25th percentile of loom rate of first responders as perceived by neighbors.

loom_75th_percentile_deg_s [units degrees per second]: 75th percentile of loom rate of first responders as perceived by neighbors.

median_translation_deg_s [units degrees per second]: median of translation rate of first responders as perceived by neighbors.

translation_25th_percentile_deg_s [units degrees per second]: 25th percentile of translation rate of first responders as perceived by neighbors.

translation_75th_percentile_deg_s [units degrees per second]: 75th percentile of translation rate of first responders as perceived by neighbors.

(5) Dataset_S5.csv: Total visual motion (looming motion + translation) summed over all neighbors, and looming from dominant neighbor (i.e., neighbor producing the strongest loom) for all instances in which at least two individuals were present and total visual motion was greater than zero. Each row represents visual variables perceived by a single individual at a single point in time (data shown in Fig 3B-C of Main Text).

Variables:

total_visual_motion_deg_sec [units degrees second⁻¹]: total visual motion perceived by individuals. Each row corresponds to perceived total loom by an individual at a single point in time.

dominant_loom_deg_sec [units degrees second⁻¹]: looming motion perceived by individuals.

density_indiv_per_m2 [units individuals meter⁻²]: total density of fish present when stimulus was perceived computed as the number of individuals present in the foraging area recorded by cameras divided by the area of visible reef floor.

(6) Dataset_S6.csv: Value of response rescaling decision function (see Methods section and Supporting Information for definition and description of calculation) for first responders, secondary responders, and individuals that did not respond during natural escape events (data shown in Fig. 3E of Main Text).

Variables:

response_class [units NA]: response class of the individual (first responder, fr; secondary responder, sr; or non-responder, nr). Each row in dataset corresponds to a distinct individual.

response [units NA]: binary variable indicating whether individual responded (1) or did not respond (0).

scaled_decision_function_value [units dimensionless]: value of decision function (see Supporting Information for definition and description of calculation) minus decision threshold parameter (D^*).

(7) Dataset_S7.csv: Fraction of individuals responding (Fig. 1C of Main Text) as a function of density of individuals present (Fig. 4B of Main Text).

Variables:

density [units individuals m^{-2}]: total density of fish present at onset of escape event.

fraction_responding [units dimensionless]: fraction of all individuals present that respond (displayed in Fig. 1C of Main Text).

fraction_secondarily_responding [units dimensionless]: Fraction of individuals present (not including first responder) that respond following an escape maneuver by the first responder. Cases in which only two individuals were present are excluded from consideration (i.e., set to NA). The arithmetic mean of this variable is used as an estimate of empirical response probability (Main Text Fig. 4B black points).