**Metadata for database of thermal dependence of biological traits**

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NA is either not detailed in original source, or is not relevant.

| **Variable** | **Variable definition** | **Type** | **Variable codes** |
| --- | --- | --- | --- |
| DataSeriesID | Unique identifier code for each intraspecific thermal response curve. | Integer | NA |
| Trait | Trait name. | Character | NA |
| TraitDef | Trait definition. | Character | NA |
| TraitOrg | Level of biological organization of the trait. | Character | *internal* = processes internal to the organism; *individual* = processes at the level of individual organisms that include mechanical interactions with the external environment; *population* = processes for a group of conspecific individuals; *interaction* = processes involving interaction between two or more species |
| AmbientTemp | Temperature (°C) of ambient environment (i.e., field or experimental arena). | Floating point | If *NA* then see ConTemp or ResTemp |
| TraitValueSI | Value of trait performance in SI units. | Floating point | NA |
| TraitUnitSI | Units for trait performance in SI units. | Character | NA |
| ErrorPosSI | Positive value of error in SI units (see **ErrorUnitSI**). | Floating point | NA |
| ErrorNegSI | Negative value of error in SI units (see **ErrorUnitSI**). | Floating point | NA |
| ErrorUnitSI | Unit of error. | Character | *SD* = standard deviation; *SE* = standard error; *95% CI* = 95% confidence interval; *interquartile range*; *range* |
| Replicates | Number of replicates for each record. | Integer | NA |
| Habitat | Habitat where trait performance was measured. | Character | *terrestrial*; *freshwater*; *marine* |
| LabField | Whether trait performance was measured in the laboratory or field. | Character | *laboratory*; *field* |
| ArenaValueSI | SI value of size of arena where trait performance was measured. | Floating point | NA |
| ArenaUnitSI | SI unit of size of arena where trait performance was measured. | Character | *cubic meter*; *square meter*; *meter* = when only length of arena was stated |
| ObsTimeValueSI | Total observation time (i.e., time over which experiment was run for measurement of trait performance). | Floating point | NA |
| ObsTimeUnitSI | Unit of **ObsTime**. | Character | *second*; *prey caught* = time taken for **ObsTimeValueSI** number of prey caught |
| ObsTimeNotes | Notes for total observation time (i.e., time over which experiment was run for measurement of trait performance). | Character | NA |
| ResRepValueSI | SI value for how often resources were replaced over observation time. | Floating point | NA |
| ResRepUnitSI | SI value for how often resources were replaced over observation time. | Character | *not replaced*; *second*; *to satiation* = resources replaced sufficiently frequently so that consumer always had access to resources |
| Location | Location (generally town, state, country) of where organisms were collected, or when measurements were taken at a different location then both are listed. | Character | NA |
| Latitude | Approximate latitude of middle of location where animals were collected (e.g., field station, town, state, country), or when not available then where measurements were taken. | Numeric (3 decimal places) | NA |
| Longitude | Approximate longitude of middle of location where animals were collected (e.g., field station, town, state, country), or when not available then where measurements were taken. | Numeric (3 decimal places) | NA |
| TraitRelevantTaxa | Taxa (i.e., Consumer or Resource) for which the trait was measured | Character | *consumer*; *resource* |
| TaxaPresent | Whether one or two taxa are part of the trait measurement and definition. If only a single organism is involved (e.g., metabolic rate, heart rate), it is always listed as a trait for a consumer. | Character | *consumer* = trait involves a single organism; *consumer-resource* = trait involves two organisms |
| ConType | Type of consumer. | Character | *alive* = organism alive when trait performance measured; *dead* = organism dead when trait performance measured; *artificial* = ‘organism’ simulated by a physical stimulus (e.g., predator model, prodding, gravity) |
| Con | Binomial name of consumer or lowest taxonomic identity, or other appropriate name for artificial taxa (see **ConType**). | Character | NA |
| ConCommon | Common name of consumer. | Character | NA |
| ConStage | Life stage of consumer, and sex in parenthesis when available. | Character | NA |
| ConIDLevel | Taxonomic level to which the consumer was identified. | Character | *kingdom*; *phylum*; *class*; *order*; *family*; *genus*; *species* |
| ConKingdom | Taxonomic name of Kingdom of consumer. | Character | NA |
| ConPhylum | Taxonomic name of Phylum of consumer. | Character | NA |
| ConClass | Taxonomic name of Class of consumer. | Character | NA |
| ConOrder | Taxonomic name of Order of consumer. | Character | NA |
| ConFamily | Taxonomic name of Kingdom of consumer. | Character | NA |
| ConTrophic | Broad trophic group of consumer, as determined by published literature and expert opinion. | Character | *carnivore*; *detritivore*; *herbivore*; *omnivore*; *producer*; *self* = energy self-supplied (e.g., pupae, egg) |
| ConThermy | Thermy of consumer. | Character | *ectotherm*; *endotherm* |
| ConTemp | Body temperature (°C) of consumer. | Floating point | NA |
| ConTempMethod | Method of determining body temperature of consumer. | Character | *direct* = measured directly from within or on the organism; *inferred (ambient)* = estimated from known ambient temperature and generally within arena where organism not able to thermoregulate; *inferred (endotherm)* = body temperature relatively constant and estimated from published literature; *inferred (consumer)* = estimated from known consumer body temperature (relevant for **ResTempMethod**, see below) |
| ConAcc | Broad details of how consumer was acclimated (i.e., prior to placement at test temperature), such as if it was captive bred or wild caught. | Character | *field collected*; *field collected (at acclimation temperature)* = see **ConAccTemp**; *field collected (at test temperature)* = see **AmbientTemp** or **ConTemp**; *captive bred*; *captive bred (at acclimation temperature)* = see **ConAccTemp**; *captive bred (at test temperature)* = see **AmbientTemp** or **ConTemp** |
| ConAccTemp | Temperature (°C) at which consumer was acclimated (i.e., prior to placement at test temperature). Average temperature given when a temperature range reported in the original study. | Floating point | NA |
| ConAccTempNotes | Notes for **ConAccTemp**, such as temperature range. | Character | NA |
| ConAccTime | Time consumer spent at **ConAccTemp**. Every attempt was made to obtain a value, and where necessary text descriptions of time were converted to second (e.g., “few” or “several” = 3, “couple” = 2). | Floating point | NA |
| ConAccTimeUnit | Units of **ConAccTemp**. | Character | *second* |
| ConAccTimeNotes | Notes for **ConAccTemp**, such as temperature range. | Character | NA |
| ConTimeTestTemp | Time consumer spent at test temperature (see **AmbientTemp**, **ConTemp**, or **ResTemp**) prior to start of the experiment over which trait performance was measured (i.e., **ObsTime** is zero). | Floating point | NA |
| ConTimeTestTempUnit | Units of **ConTimeTestTemp**. | Character | *second* |
| ConTimeTestTempNotes | Notes for **ConTimeTestTemp**, such as range of time. | Character | NA |
| ConMassValueSI | SI value of consumer mass as obtained from original source or estimated from other published literature (see [Dell et al. (2011](#_ENREF_9)) for further details). | Floating point | NA |
| ConMassUnitSI | SI unit of **ConMassValueSI**. | Character | *kilogram (wet body mass)* = wet mass of entire body of consumer; *kilogram (wet tissue mass)* = wet mass of tissue of consumer (e.g., excluding shell for gastropods) |
| ConDenValueSI | SI value of consumer density. | Floating point | NA |
| ConDenTypeSI | Type of SI units of **ConDenValueSI**. | Character | *individual*; *kilogram (dry body mass)*; *kilogram (wet body mass)*; *liter*; *to satiation* = resource density above what consumer could fully consume (relevant for **ResDenTypeSI**, see below) |
| ConDenUnitSI | SI units of **ConDenValueSI**. | Character | *arena*; *square* *meter*; *cubic* *meter;* *meter* = when only length of arena was stated (see **ArenaUnitSI**) |
| ResType | *Same as for* ***ConType*** *(see above), but for resource*. | | |
| Res | *Same as for* ***Con*** *(see above), but for resource*. | | |
| ResCommon | *Same as for* ***ConCommon*** *(see above), but for resource*. | | |
| ResStage | *Same as for* ***ConStage*** *(see above), but for resource*. | | |
| ResIDLevel | *Same as for* ***ConIDLevel*** *(see above), but for resource*. | | |
| ResKingdom | *Same as for* ***ConKingdom*** *(see above), but for resource*. | | |
| ResPhylum | *Same as for* ***ConPhylum*** *(see above), but for resource*. | | |
| ResClass | *Same as for* ***ConClass*** *(see above), but for resource*. | | |
| ResOrder | *Same as for* ***ConOrder*** *(see above), but for resource*. | | |
| ResFamily | *Same as for* ***ConFamily*** *(see above), but for resource*. | | |
| ResTrophic | *Same as for* ***ConTrophic*** *(see above), but for resource*. | | |
| ResThermy | *Same as for* ***ConThermy*** *(see above), but for resource*. | | |
| ResTemp | *Same as for* ***ConTemp*** *(see above), but for resource*. | | |
| ResTempMethod | *Same as for* ***ConTempMethod*** *(see above), but for resource*. | | |
| ResAcc | *Same as for* ***ConAcc*** *(see above), but for resource*. | | |
| ResAccTemp | *Same as for* ***ConAccTemp*** *(see above), but for resource*. | | |
| ResAccTempNotes | *Same as for* ***ConAccTempNotes*** *(see above), but for resource*. | | |
| ResAccTime | *Same as for* ***ConAccTime*** *(see above), but for resource*. | | |
| ResAccTimeUnit | *Same as for* **ConAccTimeUnit** *(see above), but for resource*. | | |
| ResAccTimeNotes | *Same as for* **ConAccTimeNotes** *(see above), but for resource*. | | |
| ResTimeTestTemp | *Same as for* **ConTimeTestTemp** *(see above), but for resource*. | | |
| ResTimeTestTempUnit | *Same as for* **ConTimeTestTempUnit** *(see above), but for resource*. | | |
| ResTimeTestTempNotes | *Same as for* **ConTimeTestTempNotes** *(see above), but for resource*. | | |
| ResMassValueSI | *Same as for* ***ConMassValueSI*** *(see above), but for resource*. | | |
| ResMassUnitSI | *Same as for* ***ConMassUnitSI*** *(see above), but for resource*. | | |
| ResDenValueSI | *Same as for* ***ConDenValueSI*** *(see above), but for resource*. | | |
| ResDenTypeSI | *Same as for* ***ConDenTypeSI*** *(see above), but for resource*. | | |
| ResDenUnitSI | *Same as for* ***ConDenUnitSI*** *(see above), but for resource.* | | |
| CitationID | Unique identification number for citation. | Integer | NA |
| Citation | Citation from which data was obtained. | Character | NA |
| FigureTable | Figure or table from which data was obtained within original citation. | Character | NA |