

Technical overview of PADRINO

PADRINO is structured such that each model gets one row for the Metadata table, and an arbitrary number of rows for every table after that. Some models may have 0, 1, or many rows for some of these tables. Information for each model is linked across tables by the `ipm_id` column. Complete descriptions of each column are provided [here](#).

Metadata <ul style="list-style-type: none">• <code>ipm_id</code>• <code>species_author</code>• <code>species_accepted</code>• <code>tax_genus</code>• <code>tax_order</code>• <code>tax_class</code>• <code>tax_phylum</code>• <code>kingdom</code>• <code>organism_type</code>• <code>dicot_monocot</code>• <code>angio_gymno</code>• <code>authors</code>• <code>journal</code>• <code>pub_year</code>• <code>doi</code>• <code>corresponding_author</code>• <code>email_year</code>• <code>remark</code>• <code>apa_citation</code>• <code>demog_appendix_link</code>• <code>duration</code>• <code>start_year</code>• <code>start_month</code>• <code>end_year</code>• <code>end_month</code>• <code>periodicity</code>• <code>population_name</code>• <code>number_publications</code>• <code>lat</code>• <code>lon</code>• <code>altitude</code>• <code>country</code>• <code>continent</code>• <code>ecoregion</code>• <code>studied_sex</code>• <code>eviction_used</code>• <code>evict_type</code>• <code>treatment</code>• <code>has_time_lag</code>• <code>has_age</code>• <code>has_dd</code>• <code>is_periodic</code>	StateVariables <ul style="list-style-type: none">• <code>ipm_id</code>• <code>state_variable</code>• <code>discrete</code> ContinuousDomains <ul style="list-style-type: none">• <code>ipm_id</code>• <code>state_variable</code>• <code>domain</code>• <code>lower</code>• <code>upper</code>• <code>kernel_id</code>• <code>notes</code> IntegrationRules <ul style="list-style-type: none">• <code>ipm_id</code>• <code>state_variable</code>• <code>domain</code>• <code>n_meshpoints</code>• <code>integration_rule</code>• <code>kernel_id</code> StateVectors <ul style="list-style-type: none">• <code>ipm_id</code>• <code>expression</code>• <code>n_bins</code>• <code>comment</code> IpmKernels <ul style="list-style-type: none">• <code>ipm_id</code>• <code>kernel_id</code>• <code>formula</code>• <code>model_family</code>• <code>domain_start</code>• <code>domain_end</code> VitalRateExpr <ul style="list-style-type: none">• <code>ipm_id</code>• <code>demographic_parameter</code>• <code>formula</code>• <code>model_type</code>• <code>kernel_id</code>	ParameterValues <ul style="list-style-type: none">• <code>ipm_id</code>• <code>demographic_parameter</code>• <code>state_variable</code>• <code>parameter_name</code>• <code>parameter_value</code> EnvironmentalVariables <ul style="list-style-type: none">• <code>ipm_id</code>• <code>env_variable</code>• <code>vr_expr_name</code>• <code>env_range</code>• <code>env_function</code>• <code>model_type</code> ParSetIndices <ul style="list-style-type: none">• <code>ipm_id</code>• <code>env_variable</code>• <code>vr_expr_name</code>• <code>range</code>• <code>kernel_id</code>• <code>drop_levels</code>
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Figure 1: **Figure S1:** An overview of all the tables and columns contained in PADRINO. All tables are linked by `ipm_id` to ensure that each model has all the necessary information associated with it when a user requests one to be built.