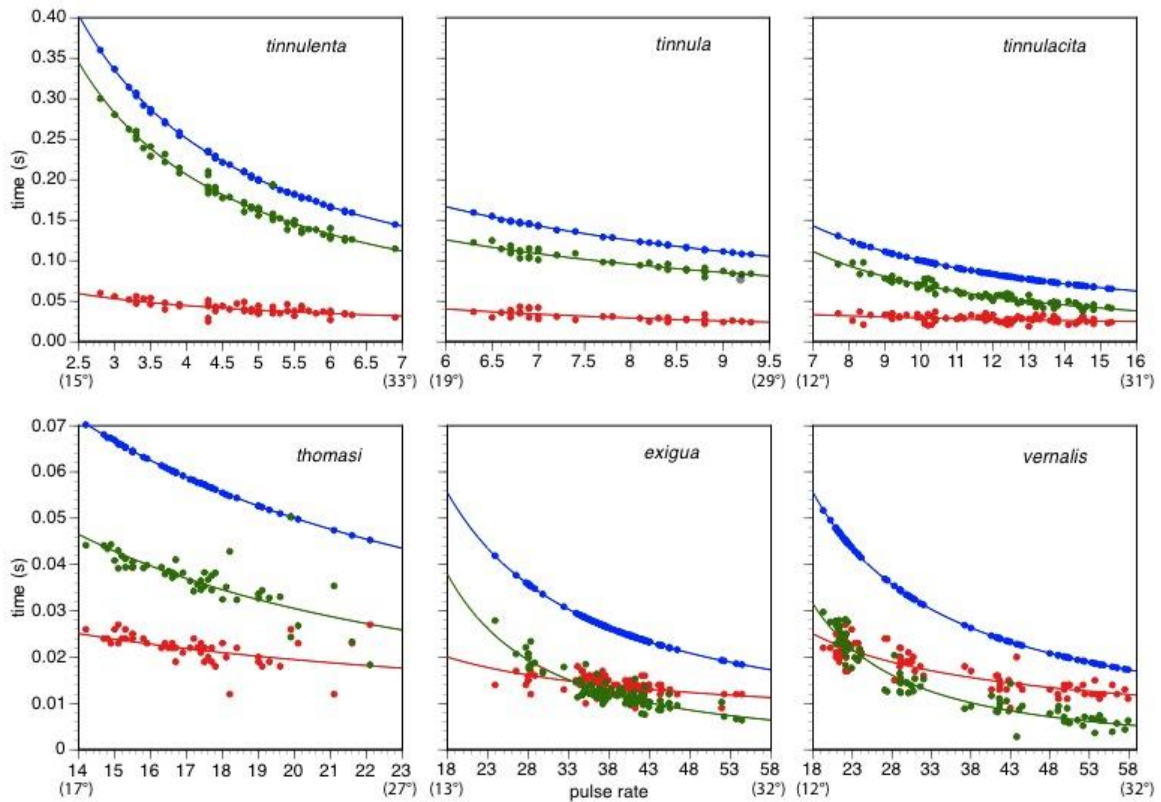


Fig_PI&PDby6trillersLL. Pulse period (blue), pulse duration (red) and pulse interval (green) as a function of pulse rate for six species of NA Anaxipha with continuous trills, over a range of (temperature dependent) pulse rates. Typical pulse rate at 25° is shown with an arrow along the x-axis. Slopes are given for pulse duration and pulse interval (slope for pulse period is -1.0 in all cases).



Fig_PI&PDby6trillersAA. Arithmetic graphs of the same data as displayed in the logarithmic graphs above. Of the six graphs here, the three in the upper row have y-axes that extend to a value nearly six times higher than the highest value in the y-axes of the three in the lower row. The x-axes of the six graphs have ranges of pulse rates appropriate to the species and the temperatures at which they were recorded. Because *exigua* and *vernalis* have nearly identical pulse rates, the x-axes of their graphs were made the same. The range of temperatures represented by each x-axis was calculated from the formulas found in Table 2 and is given in parentheses below the axis. (The curved lines in these graphs are not exact mathematical equivalents of the regression lines in SMFig_PI&PDby6trillersLL, because the lines here were obtained by using a power function curve fit.)

Interpretation

With the exception of the LL graph for *tinnula*, these 12 graphs each show that PD is conserved at the expense of PI as temperature increases. Such conservation of PD results in PI declining faster than PD, which causes Pdc to increase in each species as temperature increases. The Pdc also increases among species as their PR at 25C becomes greater (Fig. 17E). However, none of the six species in the graphs above are among the four species of North American *Anaxipha* with PRs at 25°C that exceed 45 p/s, and those four species seem to have reached some sort of upper limit of Pdc (Fig. 17E).