[illegible] (3, 5). [illegible] 13 ([illegible] 13) [illegible] 4 ([illegible]). [illegible] (18). [illegible] (Diptera [illegible] .).

[illegible] (16). [illegible] 1.

[illegible]

[illegible] ([illegible] $^{-1}$ [illegible] $^{-1}$). [illegible] (P) [illegible] (C) [illegible] (R) [illegible] (G, [illegible] $^{-1}$ [illegible] $^{-1}$) [illegible] P [illegible] G [illegible] C [illegible] R. [illegible] $Y = \alpha$ [illegible] $^{\beta}$, [illegible] α [illegible] β [illegible] C. [illegible] (μ [illegible] $^{-1}$) [illegible]

[illegible] C [illegible] 1). [illegible] 1 [illegible] 1 [illegible] 5 [illegible]

[illegible]

[illegible] R [illegible] (16). [illegible]

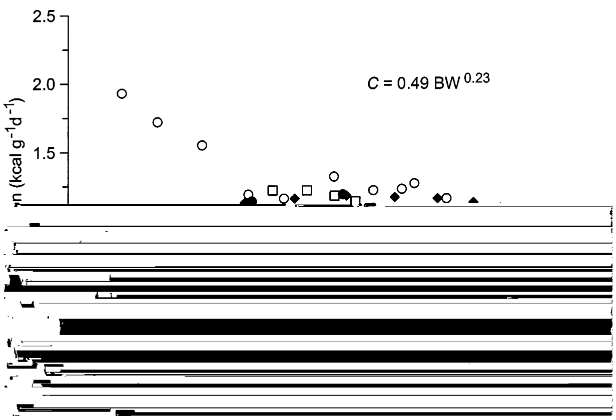

FIGURE 2. Allometric equation for gross energy consumption by nestling tree swallows. Consumption values are shown as individual points and were obtained from the following species: solid circles, red-backed shrike (*19*); open circles, house sparrow (*20*); open squares, yellow-eyed junco (*21*); solid triangles, house sparrow (*22*); open triangles, tree sparrow (*22*); solid diamonds, ash-throated flycatcher (*23*); open diamonds, western bluebird (*23*). The equation was obtained by fitting model simulations to growth data shown in Figure 1.

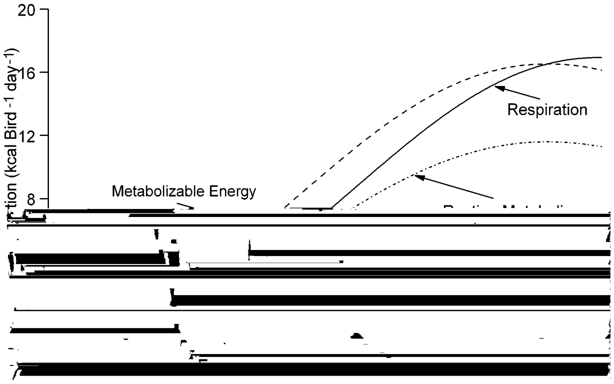

FIGURE 3. Tree swallow energy budget predicted by the bioenergetics model. Simulations are given for metabolizable energy (dashed line), total respiration (solid line), and resting metabolism (dotted line). Energy available for production is equal to the difference between metabolizable energy and total respiration. The difference between total respiration and resting metabolism is due to the energy cost of activity.

[illegible] (*16*). [illegible] 20 [illegible]

[illegible] 1.65 [illegible] 13 [illegible] 0% [illegible] (70%) [illegible] (*24*).

[illegible] (*25, 26*). [illegible]

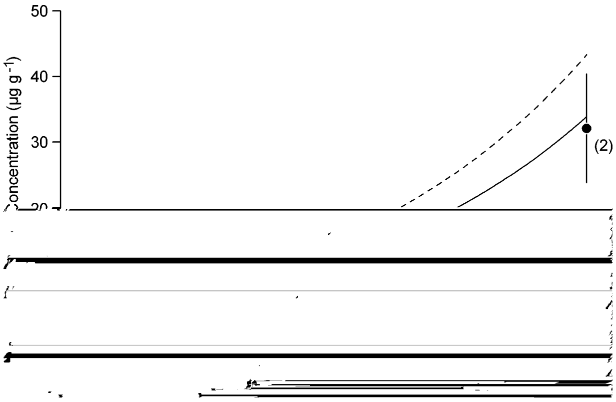

FIGURE 4. Simulated and observed total PCB concentrations in nestlings from the SA13 study site. Simulations were generated by setting the PCB concentration in the diet equal to that in food boli taken from adult birds. Dashed and solid lines represent simulations obtained by setting dietary assimilation efficiency equal to 0.9 and 0.7, respectively. Measured PCB concentrations (mean ± SD) are shown as individual points with sample sizes in parentheses. The value given for nestling age 0 represents the mean of measured concentrations in eggs.

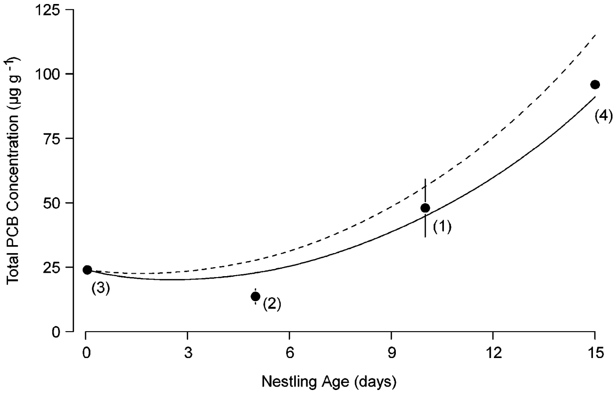

FIGURE 5. Simulated and observed total PCB concentrations in nestlings from the REMN study site. Simulations were generated by setting the PCB concentration in the diet equal to that in food boli taken from adult birds. Dashed and solid lines represent simulations obtained by setting dietary assimilation efficiency equal to 0.9 and 0.72, respectively. Measured PCB concentrations (mean ± SD) are shown as individual points with sample sizes in parentheses. The value given for nestling age 0 represents the mean of measured concentrations in eggs.

[illegible] . 077 [illegible] 126) [illegible] 105, 118, [illegible] 156). [illegible] *K* [illegible] 5.02 [illegible] 01 [illegible] 7.36 [illegible] 180) (*27*).

Results

[illegible] 0 [illegible] 5 [illegible] 5 [illegible] 15. [illegible] (*16*). [illegible] 4 [illegible] 5). [illegible] 5, 10, [illegible] 15 [illegible] 13 [illegible] 0.70 [illegible] 0.72, [illegible]

[illegible] 2 [illegible] 1, [illegible] 01 , 026, 042, 044, 04 , 084, [illegible] 110.

[illegible] 13. [illegible] ([illegible] K), [illegible] 50% [illegible] ([illegible] 6). [illegible] (–

[illegible] ([illegible]) [illegible] ([illegible] – [illegible] / [illegible]) × 100 ([illegible] 6 [illegible] 7). [illegible] K [illegible] (*24*). [illegible] K [illegible] K [illegible] K [illegible]

[illegible] -450- [illegible] (*25*, *26*). [illegible] (*26*). [illegible] – [illegible] (o,m) [illegible] – [illegible] (m,p) [illegible] 153 [illegible] 180. [illegible] m,p [illegible] o,m [illegible] 2 [illegible] 052, 151, [illegible] 174. [illegible] o,m [illegible] m,p [illegible] 1, [illegible] 028, 074, 077, 114, 118, 126, 138, [illegible] 156. [illegible] m,p [illegible] o,m