

Correction



Cite this article: Mitchell D. 2023 Correction: 'Thermal efficiency extends distance and variety for honey bee foragers: analysis of the energetics of nectar collection and dessication by *Apis mellifera*' (2019), by Derek Mitchell. *J. R. Soc. Interface* **20**: 20230598. <https://doi.org/10.1098/rsif.2023.0598>

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Table 2. General parameters.

item	value	source	item	value	source	item	value	source
κ_{Air}	$1.2 \text{ kJ K}^{-1} \text{ kg}^{-1}$	[58]	ρ_{Air}	1 kg m^{-3}	[58]	A_{Entrance}	$10 \times 10^{-4} \text{ m}^2$	[60]
L_{Sucrose}	16.2 MJ kg^{-1}	[59]	u_{Entrance}	0.94 m s^{-1}	[49]	C_{Honey}	0.8	[4,45]
φ	$162.5 \text{ J kg}^{-1} \text{ m}^{-1}$	[4]	L_{Water}	$2.426 \text{ MJ kg}^{-1} @305 \text{ K}$	[7]			

Subject Category:

Life Sciences—Engineering interface

Subject Areas:

biometeorology, computational biology, systems biology

Keywords:

evaporation, nectar, efficiency, ripening, climate

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Correction: 'Thermal efficiency extends distance and variety for honey bee foragers: analysis of the energetics of nectar collection and dessication by *Apis mellifera*' (2019), by Derek Mitchell

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This article corrects the following:

Errors were found in table 2 [1] in the size of entrances, heat capacity of air and also in the quoted lumped conductances of hives and trees in the introduction. This led to the following amendments to the introduction and table 2. All other results and the conclusions drawn are unaffected.

Typical values for the lumped conductance range from 1 W K^{-1} for tree nests to 3 W K^{-1} for man-made nests. Typical values for entrance size and fanned air velocity are 10 cm^3 [4] and 1 m s^{-1} [49]. These give an advection term of around 0.5 W K^{-1} ; thus for hives we can ignore the energy in the advection caused by honey bees fanning at the entrance.

Reference

- Mitchell DM. 2019 Thermal efficiency extends distance and variety for honeybee foragers: analysis of the energetics of nectar collection and dessication by *Apis mellifera*. *J. R. Soc. Interface* **16**, 20180879. (doi:10.1098/rsif.2018.0879)

This has been corrected on the publisher's website.