

## Supplementary Materials

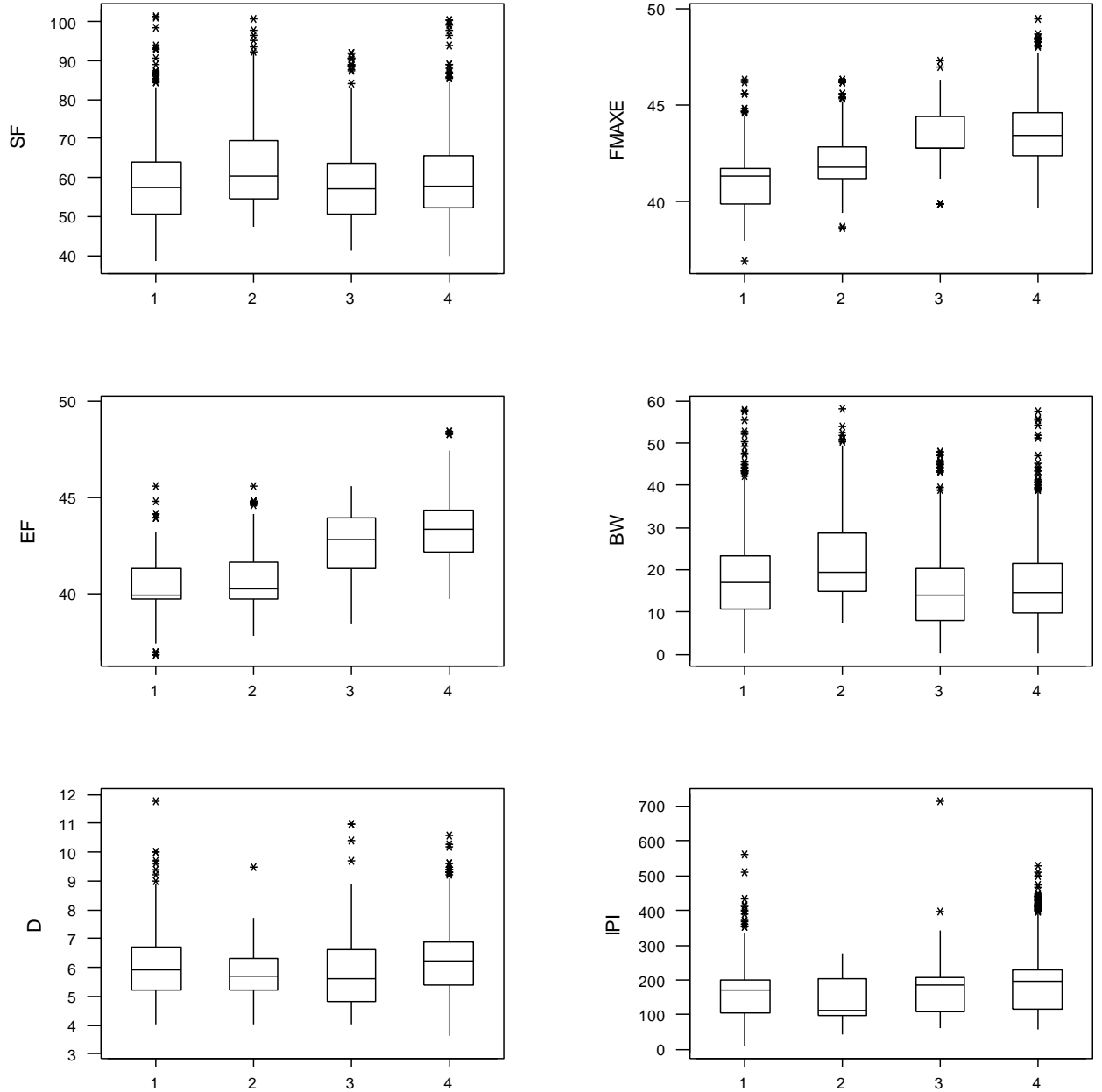
**Table S1.** Frequency and time parameters of echolocation calls for *Pipistrellus kuhlii* at four sites in the Tunisian desert: Kruskal–Wallis tests and ad hoc multiple paired comparisons.

SF - H = 24.57	Bordj Khadra r. b.	Bordj Khadra oasis	Oued Dkouk N. R.
Ain Rhziza	p < 0.001	p < 0.001	p < 0.001
Bordj el Khadra reed bed		NS	NS
Bordj el Khadra oasis			NS
	2	3	4
FMAXE - H = 706.34	Bordj Khadra r. b.	Bordj K. oasis	Oued Dkouk N. R.
Ain Rhziza	p < 0.001	p < 0.001	p < 0.001
Bordj el Khadra reed bed		NS	p < 0.001
Bordj el Khadra oasis			p < 0.001
	2	3	4
EF - H = 797.65	Bordj Khadra r. b.	Bordj K. oasis	Oued Dkouk N. R.
Ain Rhziza	p < 0.001	p < 0.001	NS
Bordj el Khadra reed bed		p < 0.05	p < 0.001
Bordj el Khadra oasis			p < 0.001
	2	3	4
D - H = 50.63	Bordj Khadra r. b.	Bordj K. oasis	Oued Dkouk N. R.
Ain Rhziza	NS	p < 0.001	p < 0.05
Bordj el Khadra reed bed		NS	p < 0.001
Bordj el Khadra oasis			p < 0.001
	2	3	4
IPI - H = 119.22	Bordj Khadra r. b.	Bordj K. oasis	Oued Dkouk N. R.
Ain Rhziza	p < 0.001	p < 0.001	NS
Bordj el Khadra reed bed		p < 0.05	p < 0.001
Bordj el Khadra oasis			NS

**Table S2.** Comparisons (Chi-square tests) of overnight activity among sites and periods at four sites in the Tunisian desert.

	Chi-square	df	p-value
Sites * periods	1990.20	57	< 0.001
Sites	47.94	3	< 0.001
Period—Oued Dkouk N. R.	643.64	17	< 0.001
Period—Ain Rhziza.	5033.45	17	< 0.001
Period—Bordj Khadra reed bed	480.86	19	< 0.001
Period—Bordj Khadra oasis	1085.96	19	< 0.001

**Figure S1.** Boxplots of frequency and time parameters of echolocation calls for *Pipistrellus kuhlii* at four sites of the Tunisian desert: SF: start frequency (kHz), FMAXE: frequency of maximum energy (kHz), EF: end frequency (kHz), BW: bandwidth (kHz), D: duration (ms), IPI: interpulse interval (ms). 1: Oued Dkouk Nature Reserve, 2: Ain Rhziza, 3: Bordj el Khadra reed bed, 4: Bordj el Khadra oasis.



**Figure S2.** Night activity (number of passes per 30 min) of *Pipistrellus kuhlii* (blue), *Eptesicus isabbelinus* (red) and *Tadarida teniotis* (green) recorded in May 2021 at Oued Dkouk Nature Reserve (Tunisian desert). Automatic echolocation call recording started 30 min before sunset and lasted 30 min after sunrise.

