

SUPPLEMENTARY MATERIALS

Additional information on the collected specimens:

A total of 798 spiders (261 adults and 537 juveniles and sub-adults) representing 30 families and 191 morphospecies was sampled. Nearly half (47.6%) of the morpho-species were singleton.

Table S1. Spider families included in each guild and simplified guild.

Guild	Simplified guild	families
Ambush hunters	Other hunters	Deinopidae, Selenopidae, Thomisidae
Ground hunters	Ground hunters	Anyphaenidae, Corinnidae, Gnaphosidae, Oonopidae
Orb web weavers	Web hunters	Araneidae, Synotaxidae, Synotaxisae, Tetragnathidae, Theridiosomatidae, Uloboridae
Other hunters	Other hunters	Clubionidae, Ctenidae, Miturgidae, Salticidae, Scytodidae, Senoculidae, Sparassidae
Sensing web	Web hunters	Theraphosidae
Sheet web	Web hunters	Eresidae, Ochyroceratidae, Pisauridae, Mysmenidae, Nesticidae, Pholcidae, Theridiidae
Specialists	Other hunters	Caponiidae, Mimetidae, Trechaleidae, Zodariidae

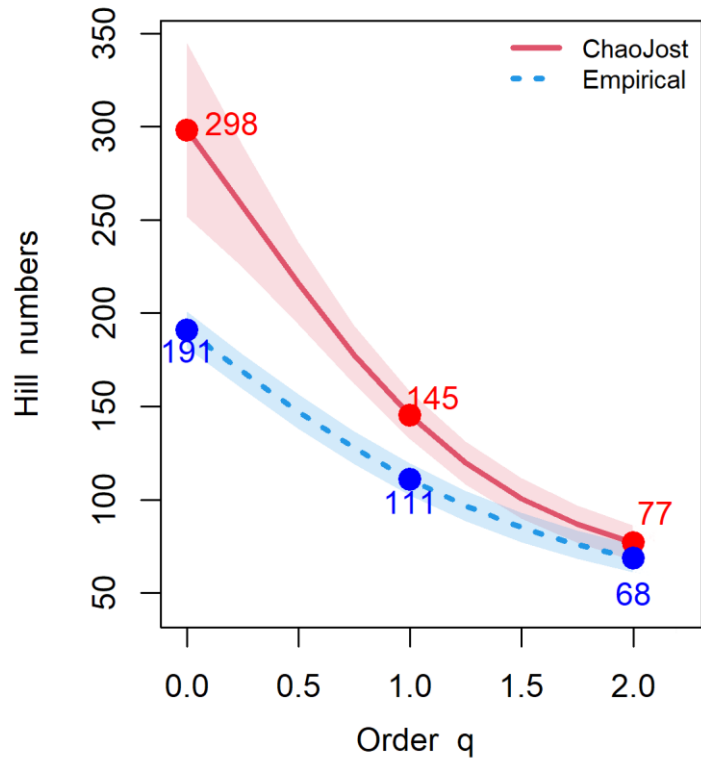


Figure S1. Continuous profile of the empirical (dashed) and estimated diversity with Chao and Jost bias estimator correction (solid line) which plots Hill numbers as a function of order q , $0 \leq q \leq 3$. The solid dots denote Hill numbers for order $q = 0$ (species richness), $q = 1$ (Shannon diversity) and $q = 2$ (Simpson diversity).

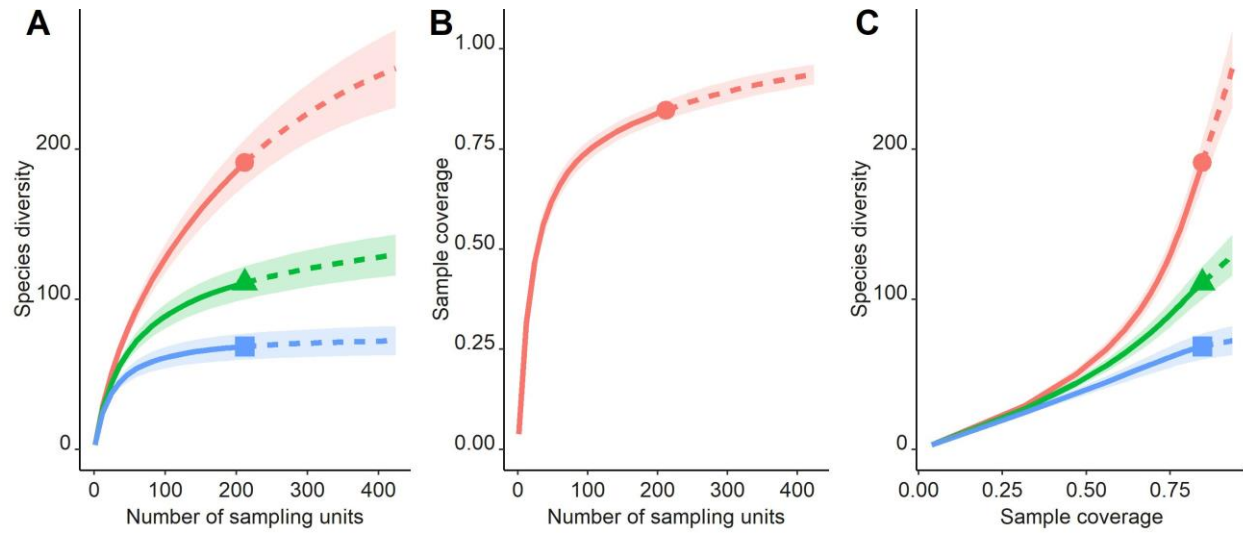


Figure S2. Sample- and coverage-based rarefaction (solid line) and extrapolation (dashed line) of Hill numbers. Richness ($q = 0$) is in red with a dot at the observed value. Shannon diversity ($q = 1$) is in green with a triangle at the observed value. Simpson diversity ($q = 2$) is in blue with a square at the observed value. A) diversity according the sampling effort. B) Sampling coverage, observed value: 0.85. C) Diversity according sampling coverage. All extrapolation curves were plotted to a doubling in sample size, and 200 bootstrap replicates were used to estimate 95% confidence intervals

Table S2. Effects of methodological and ecological factors on spider species, families, guilds and simplified guilds composition (ANOSIM). NHC: Nocturnal hand collecting.

Variable tested	Dataset	Source of variation	R	P
Species composition	All	Method	0.03	1e-04
		Elevation	0.04	1e-04
	Only beating & sweeping	Method	0.03	1e-04
		Elevation	0.04	1e-04
	Only beating	Elevation	0.06	1e-04
	Only sweeping	Elevation	0.04	2e-04
Only NHC	Elevation	0.14	0.08	
Family composition	All	Method	0.08	1e-04
		Elevation	0.05	2e-04
	Only beating & sweeping	Method	0.05	1e-04
		Elevation	0.04	3e-04
	Only beating	Elevation	0.09	1e-04
	Only sweeping	Elevation	0.03	0.05
Only NHC	Elevation	0.35	0.014	
Guild composition	All	Method	0.05	0.002
		Elevation	0.05	1e-04
	Only beating & sweeping	Method	0.06	1e-04
		Elevation	0.05	3e-04
	Only beating	Elevation	0.08	1e-04
	Only sweeping	Elevation	0.03	0.06
Only NHC	Elevation	0.34	0.019	
Simplified guild composition	All	Method	0.04	0.01
		Elevation	0.08	1e-04
	Only beating & sweeping	Method	0.05	2e-04
		Elevation	0.08	1e-04
	Only beating	Elevation	0.11	1e-04
	Only sweeping	Elevation	0.05	0.02
Only NHC	Elevation	0.14	0.23	

Table S3. Changes in β -diversity among spider assemblages. P500: slopes; P700: hilltops; NHC: Nocturnal hand collecting.

Taxon	Group comparison		Dissimilarity index
Morpho-species	Between elevation		0.75
	Between methods	average	0.84
		Beating - Sweeping	0.75
		Beating - NHC	0.92
		Sweeping - NHC	0.86
	Between methods within P500	average	0.87
	Between methods within P700	average	0.87
	Between plots within P500	average	0.66
	Between plots within P700	average	0.54
Families	Between elevation		0.37
	Between methods	average	0.42
		Beating - Sweeping	0.33
		Beating - NHC	0.5
		Sweeping - NHC	0.42
	Between methods within P500	average	0.51
	Between methods within P700	average	0.6
	Between plots within P500	average	0.25
	Between plots within P700	average	0.33
Guilds	Between habitats		0
	Between methods	average	0
		Beating - Sweeping	0
		Beating - NHC	0
		Sweeping - NHC	0
	Between methods within P500	average	0.17
	Between methods within P700	average	0.26
	Between plots within P500	average	0.05
	Between plots within P700	average	0.16
Simplified guilds	Between elevation		0
	Between methods	average	0
		Beating - Sweeping	0
		Beating - NHC	0
		Sweeping - NHC	0
	Between methods within P500	average	0.22
	Between methods within P700	average	0
	Between plots within P500	average	0
	Between plots within P700	average	0