Supporting Information

Manuscript:	Listening to a changing landscape: Acoustic indices reflect bird species richness and plot-scale vegetation structure across different land-use types in north-eastern Madagascar
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I. Sound recorder characteristics

We used self-built SOLO audio recorders (Whytock and Christie, 2017) with two omni-directional microphones including a sound-penetrable vent and microphone windshields for weather protection, a Raspberry Pi A+ model, a PiFace Real Time Clock module and a Cirrus Logic Audio Card (Fig. 1). We used 128 GB microSD-cards for data storage and the SOLO recorder software 'SOSI' (http://solo-system.github.io/home.html). Power was provided by a 16750 mAh USB battery pack. See Table 1 for specifications of all components. Component costs per recorder were ~320 €. We built eight recorders to sample all seven plots within one village respectively old-growth forest site simultaneously while having one recorder spare. We assigned recorders to plots by randomly setting up a deployment schedule to avoid possible biases due to differences between recorders in e.g. detection ranges. We recorded in CD-quality (44.1 kHz/16 bit) with sound files stored in segments of 10 minutes in .wav-format. To archive the sound data after recorder collection in the field, we transferred the sound files to an external hard disk. We used the software and the real time clock module of the recorders to assign each sound file a unique name referring to plot site, the recorder used (colour coding) as well as date and time (exp.: *audio-solo_red_V24-FF-2017-11-09_13-00-13.wav*).

References

Whytock, R.C., Christie, J., 2017. Solo: an open source, customizable and inexpensive audio recorder for bioacoustic research. Methods Ecol Evol 8 (3), 308–312. https://doi.org/10.1111/2041-210X.12678.

Table I: Computational settings of the *multiple_sounds function* of the R-package *soundecology* which we used to calculate the Acoustic Complexity Index (ACI), the Acoustic Diversity Index (ADI), the Acoustic Evenness Index (AEI) and the Acoustic Entropy (H) in R. Colours indicate if the setting was a default setting or if the value was adjusted. If available, we used an adjusted minimum frequency to exclude low-pitched background noise and an adjusted maximum frequency to limit the computation time. If not specified, the full frequency range of the recording (0 – 22.05 kHz) is analysed (default). We further set the dB-threshold available for the functions ADI and AEI to a higher value (default -50) to exclude background noise.

Acoustic index	min_freq [Hz]	max_freq [Hz]	j [s]	fft_w	db_threshold [dB]	freq_steps [Hz]
ACI	200	12,000	5	512		
ADI	0	12,000			-40	1000
AEI	0	12,000			-40	1000
H	0	22,050		512		

Default setting
Adjusted setting

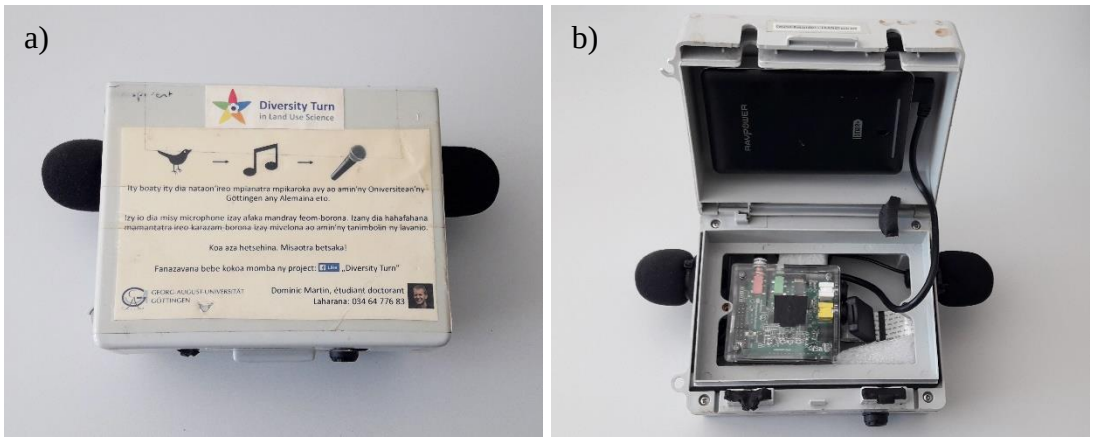

Fig. I: Self-built SOLO audio recorders used for sound recordings. a) Closed recorder with two omni-directional microphones including windshield foams and labelling in local Malagasy language to explain research method. b) Opened recorder showing its configuration based on a Raspberry Pi A+ model, Cirrus Logic audio card, PiFace Real Time Clock Module and a standard USB battery pack.

Table II: List of all components used for the self-built SOLO audio recorders

Use	**Product**	**Details**	**Comment**
Microphone	Micbooster Rugged Mount EM172	Primo EM172 capsule	Signal-to-Noise Ratio (SNR) of 80 dB at 1 kHz
Microphone vent	Gore Acoustic Vent GAW112	To avoid water entering microphone	Attached over Primo capsule within Rugged Mount EM172
Windshield	Monacor WS-40		
Computer	Raspberry Pi A+		
Clock	PiFace Real Time Clock Module		
Audio card	Cirrus Logic Audio Card		This product is not produced anymore
Memory card	SanDisk Ultra Android microSDXC	128 GB capacity	
Card Extender	Micro SD Card Extension Cable	Generic	Facilitates changing of memory card
Battery	RavPower Deluxe Series RP-PB19	16750 mAh	Fixed to lid of box using double sided tape
USB cable	USB cable	Generic	Connecting battery to raspberry Pi computer
Computer case	KnowHowTec Style Case		Capsule for computer, clock and audio card
Box	Eterna ESR SKB 2G IP65	Waterproof double socket box	Holes for microphones drilled
Box vent	Screw-in protective vent	Equalizes pressure and avoids humidity	Built into front wall of box
Lock	Oria TSA007 YiF	Number lock	
Software	SOSI (Solo Operating System Image)	Version “sosi-2016-09-18.img”	https://solo-system.github.io/downloads.html

Table III: Date and time of bird point counts and sound recordings during 2017 data collection in the predominant land-use types and for 2018 first data collection in primary forest in the SAVA region in north-eastern Madagascar. Land-use types (LUT): OGF = Old-growth Forest, FF = Forest Fragment, HF = Herbaceous Fallow, RP = Rice Paddy, V-FST = Forest-derived Vanilla Agroforests, V-FLW = Fallow-derived Vanilla Agroforests, WF = Woody Fallow. Observers: ER = Eric Rakotomalala, DAM = Dominic Andreas Martin, RA = Rouvah Andriafanomezantsoa, SD = Saskia Dröge. Date AI analysis = Date of recording chosen for acoustic index calculation.

Village	LUT	Date start recording	Time start recording	Date stop recording	Time stop recording	Date AI analysis	Date point count	Time start point count	Time end point count	Main observer	Second observer
ME	OGF	2018-08-28	11:50:00	2018-08-31	08:55:00	2018-08-30	2018-08-29	05:33:00	06:13:00	ER	DAM
ME	OGF	2018-08-28	05:35:00	2018-08-31	08:38:00	2018-08-29	2018-08-28	05:45:00	06:25:00	ER	DAM
ME	OGF	2018-08-28	06:57:00	2018-08-31	08:03:00	2018-08-29	2018-08-28	07:02:00	07:42:00	ER	DAM
ME	OGF	2018-08-29	14:14:00	2018-09-03	00:37:00	2018-09-01	2018-08-30	06:51:00	07:31:00	ER	DAM
ME	OGF	2018-08-29	15:30:00	2018-09-02	18:30:00	2018-09-01	2018-08-30	05:32:00	06:12:00	ER	DAM
MT	OGF	2018-09-03	16:04:00	2018-09-07	10:41:00	2018-09-06	2018-09-05	05:32:00	06:12:00	ER	DAM
MT	OGF	2018-09-03	15:13:00	2018-09-07	11:10:00	2018-09-04	2018-09-05	06:57:00	07:37:00	ER	DAM
MT	OGF	2018-09-04	10:30:00	2018-09-07	09:55:00	2018-09-05	2018-09-06	05:32:00	06:12:00	ER	DAM
MT	OGF	2018-09-04	06:45:00	2018-09-07	09:30:00	2018-09-06	2018-09-04	06:48:00	07:28:00	ER	DAM
MT	OGF	2018-09-04	05:20:00	2018-09-07	09:13:00	2018-09-06	2018-09-04	05:32:00	06:12:00	ER	DAM
V13	FF	2017-10-04	17:09:00	2017-10-06	10:00:00	2017-10-05	2017-12-12	06:00:00	06:40:00	DAM	RA
V13	HF	2017-10-04	14:54:00	2017-10-06	11:55:00	2017-10-05	2017-10-07	05:03:00	05:43:00	DAM	RA
V13	RP	2017-10-03	17:50:00	2017-10-06	08:30:00	2017-10-04	2017-10-06	05:28:00	06:08:00	DAM	RA
V13	VFST	2017-10-05	06:56:00	2017-10-07	09:40:00	2017-10-06	2017-10-05	07:12:00	07:52:00	DAM	RA
V13	VFLW	2017-10-04	07:00:00	2017-10-06	14:30:00	2017-10-05	2017-10-04	06:08:00	06:48:00	DAM	RA
V13	VFLW	2017-10-04	14:40:00	2017-10-06	08:19:00	2017-10-05	2017-10-06	07:24:00	08:04:00	DAM	RA
V13	WF	2017-10-04	10:18:00	2017-10-06	17:15:00	2017-10-05	2017-10-07	06:47:00	07:27:00	DAM	RA
V24	FF	2017-11-07	06:30:00	2017-11-10	08:00:00	2017-11-09	2017-11-07	06:35:00	07:15:00	DAM	RA
V24	HF	2017-11-19	12:51:00	2017-11-21	09:28:00	2017-11-20	2017-11-08	06:26:00	07:06:00	DAM	RA
V24	RP	2017-11-07	15:08:00	2017-11-10	05:10:00	2017-11-08	2017-11-09	06:20:00	07:00:00	DAM	RA
V24	VFST	2017-11-07	09:55:00	2017-11-10	07:03:00	2017-11-08	2017-11-10	06:09:00	06:49:00	DAM	RA
V24	VFLW	2017-11-07	16:30:00	2017-11-10	07:56:00	2017-11-09	2017-11-08	05:14:00	05:54:00	DAM	RA
V24	VFLW	2017-11-07	11:36:00	2017-11-10	10:40:00	2017-11-08	2017-11-09	04:55:00	05:35:00	DAM	RA
V24	WF	2017-11-07	05:12:00	2017-11-10	08:22:00	2017-11-08	2017-11-07	05:14:00	05:54:00	DAM	RA
V25	FF	2017-10-18	09:47:00	2017-10-21	07:45:00	2017-10-19	2017-12-13	06:31:00	07:11:00	DAM	RA
V25	HF	2017-10-18	15:13:00	2017-10-21	08:50:00	2017-10-19	2017-10-19	05:20:00	06:00:00	DAM	RA

Table III: (continued).

V25	RP	2017-10-18	15:59:00	2017-10-21	08:40:00	2017-10-20	2017-10-19	06:32:00	07:12:00	DAM	RA
V25	VFST	2017-10-18	08:32:00	2017-10-21	08:20:00	2017-10-19	2017-10-20	07:02:00	07:42:00	DAM	RA
V25	VFST	2017-10-18	05:11:00	2017-10-21	09:08:00	2017-10-19	2017-10-18	05:16:00	05:56:00	DAM	RA
V25	VFST	2017-10-18	06:36:00	2017-10-21	08:50:00	2017-10-20	2017-10-18	06:39:00	07:19:00	DAM	RA
V25	WF	2017-10-18	10:54:00	2017-10-21	06:09:00	2017-10-20	2017-12-13	05:10:00	05:50:00	DAM	RA
V2	FF	2017-10-31	06:45:00	2017-11-03	08:11:00	2017-11-01	2017-10-31	06:56:00	07:36:00	DAM	RA
V2	HF	2017-10-31	14:09:00	2017-11-03	06:24:00	2017-11-01	2017-11-03	05:29:00	06:09:00	DAM	RA
V2	RP	2017-10-31	16:00:00	2017-11-03	07:40:00	2017-11-02	2017-11-01	06:28:00	07:08:00	DAM	RA
V2	VFST	2017-10-31	05:19:00	2017-11-03	07:54:00	2017-11-01	2017-10-31	05:26:00	06:06:00	DAM	RA
V2	VFLW	2017-10-31	13:22:00	2017-11-03	07:08:00	2017-11-01	2017-11-02	06:48:00	07:28:00	DAM	RA
V2	VFLW	2017-10-31	08:36:00	2017-11-03	08:07:00	2017-11-02	2017-11-01	05:00:00	05:40:00	DAM	RA
V2	WF	2017-10-31	11:19:00	2017-11-03	08:14:00	2017-11-01	2017-11-02	05:00:00	05:40:00	DAM	RA
V39	FF	2017-10-11	09:00:00	2017-10-14	07:59:00	2017-10-13	2017-10-14	07:11:00	07:51:00	DAM	RA
V39	HF	2017-10-11	15:59:00	2017-10-14	08:27:00	2017-10-12	2017-10-13	05:24:00	06:04:00	DAM	RA
V39	RP	2017-10-12	14:55:00	2017-10-14	09:50:00	2017-10-13	2017-10-14	05:03:00	05:43:00	DAM	RA
V39	VFST	2017-10-11	06:20:00	2017-10-14	09:30:00	2017-10-12	2017-10-11	06:30:00	07:10:00	DAM	RA
V39	VFLW	2017-10-14	09:25:00	2017-10-17	17:00:00	2017-10-15	2017-10-12	05:34:00	06:14:00	DAM	RA
V39	VFLW	2017-10-11	10:17:00	2017-10-14	08:48:00	2017-10-13	2017-10-12	06:49:00	07:29:00	DAM	RA
V39	WF	2017-10-11	16:34:00	2017-10-14	08:11:00	2017-10-12	2017-10-13	06:27:00	07:07:00	DAM	RA
V40	FF	2017-11-13	05:08:00	2017-11-16	09:05:00	2017-11-14	2017-11-13	05:13:00	05:53:00	DAM	RA
V40	HF	2017-11-13	15:28:00	2017-11-16	07:23:00	2017-11-15	2017-11-14	06:40:00	07:20:00	DAM	RA
V40	RP	2017-11-13	16:51:00	2017-11-16	07:50:00	2017-11-15	2017-11-14	04:55:00	05:35:00	DAM	RA
V40	VFST	2017-11-13	06:55:00	2017-11-16	07:55:00	2017-11-14	2017-11-13	06:59:00	07:39:00	DAM	RA
V40	VFLW	2017-11-13	10:52:00	2017-11-16	07:12:00	2017-11-14	2017-11-16	06:25:00	07:05:00	DAM	RA
V40	VFST	2017-11-14	16:47:00	2017-11-16	08:15:00	2017-11-15	2017-11-15	05:00:00	05:40:00	DAM	RA
V40	WF	2017-11-13	09:19:00	2017-11-16	08:55:00	2017-11-14	2017-11-15	06:32:00	07:12:00	DAM	RA
V45	FF	2017-11-19	14:26:00	2017-11-22	06:33:00	2017-11-21	2017-11-22	05:10:00	05:50:00	DAM	RA
V45	HF	2017-11-20	09:36:00	2017-11-23	08:48:00	2017-11-22	2017-12-14	04:50:00	05:30:00	DAM	RA
V45	RP	2017-11-19	13:45:00	2017-11-22	08:15:00	2017-11-21	2017-11-22	07:02:00	07:42:00	DAM	RA

Table III: (continued).

V45	VFST	2017-11-20	05:14:00	2017-11-23	08:46:00	2017-11-22	2017-11-20	05:40:00	06:20:00	DAM	RA
V45	VFLW	2017-11-20	08:45:00	2017-11-23	05:47:00	*	2017-11-23	04:58:00	05:38:00	DAM	RA
V45	VFLW	2017-11-20	06:54:00	2017-11-23	09:33:00	2017-11-21	2017-11-20	06:57:00	07:37:00	DAM	RA
V45	WF	2017-11-20	11:45:00	2017-11-23	07:51:00	2017-11-22	2017-11-21	06:37:00	07:17:00	DAM	RA
V47	FF	2017-11-30	06:35:00	2017-12-05	08:00:00	2017-12-01	2017-11-27	05:09:00	05:49:00	DAM	RA
V47	HF	2017-11-27	09:04:00	2017-11-30	06:55:00	2017-11-29	2017-11-28	06:49:00	07:29:00	DAM	RA
V47	RP	2017-11-27	13:51:00	2017-11-30	05:37:00	2017-11-29	2017-11-30	04:50:00	05:30:00	DAM	RA
V47	VFLW	2017-11-27	06:09:00	2017-11-30	06:21:00	2017-11-29	2017-11-27	06:15:00	06:55:00	DAM	RA
V47	VFLW	2017-11-27	10:19:00	2017-11-30	06:30:00	2017-11-28	2017-11-29	06:00:00	06:40:00	DAM	RA
V47	VFLW	2017-11-27	09:33:00	2017-11-30	06:45:00	2017-11-28	2017-11-29	04:50:00	05:30:00	DAM	RA
V47	WF	2017-11-27	11:11:00	2017-11-30	06:17:00	2017-11-29	2017-11-28	04:53:00	05:33:00	DAM	RA
V7	FF	2017-12-04	15:02:00	2017-12-07	06:50:00	2017-12-06	2017-12-05	04:45:00	05:25:00	DAM	RA
V7	HF	2017-12-04	11:20:00	2017-12-07	08:21:00	2017-12-05	2017-12-06	06:00:00	06:40:00	DAM	RA
V7	RP	2017-12-04	08:50:00	2017-12-07	10:16:00	2017-12-06	2017-12-05	06:30:00	07:10:00	DAM	RA
V7	VFLW	2017-12-04	05:06:00	2017-12-07	08:56:00	2017-12-06	2017-12-04	05:42:00	06:22:00	DAM	RA
V7	VFLW	2017-12-04	07:12:00	2017-12-07	09:55:00	2017-12-06	2017-12-04	07:15:00	07:55:00	DAM	RA
V7	VFLW	2017-12-04	17:00:00	2017-12-07	06:56:00	2017-12-06	2017-12-07	06:00:00	06:40:00	DAM	RA
V7	WF	2017-12-04	10:47:00	2017-12-07	07:59:00	2017-12-05	2017-12-06	04:45:00	05:25:00	DAM	RA
V8	FF	2017-10-24	16:11:00	2017-10-27	06:24:00	2017-10-25	2017-10-27	05:36:00	06:16:00	DAM	RA
V8	HF	2017-10-23	21:24:00	2017-10-26	07:20:00	2017-10-24	2017-10-26	06:30:00	07:10:00	DAM	RA
V8	RP	2017-10-24	04:58:00	2017-10-27	07:47:00	2017-10-25	2017-10-24	05:13:00	05:53:00	DAM	RA
V8	VFLW	2017-10-24	09:36:00	2017-10-27	07:25:00	2017-10-26	2017-10-25	05:00:00	05:40:00	DAM	RA
V8	VFLW	2017-10-24	06:46:00	2017-10-27	08:06:00	2017-10-25	2017-10-24	06:51:00	07:31:00	DAM	RA
V8	VFLW	2017-10-24	09:09:00	2017-10-27	07:29:00	2017-10-25	2017-10-26	05:06:00	05:46:00	DAM	RA
V8	WF	2017-10-24	10:20:00	2017-10-27	07:35:00	2017-10-26	2017-10-25	05:59:00	06:39:00	DAM	RA

Table IV: Date and time of bird point counts and sound recordings during 2018 data collection in the predominant land-use types and for 2018 second data collection in primary forest in the SAVA region in north-eastern Madagascar. Land-use types (LUT): OGF = Old-growth Forest, FF = Forest Fragment, HF = Herbaceous Fallow, RP = Rice Paddy, V-FST = Forest-derived Vanilla Agroforests, V-FLW = Fallow-derived Vanilla Agroforests, WF = Woody Fallow. Observers: ER = Eric Rakotomalala, DAM = Dominic Andreas Martin, RA = Rouvah Andriafanomezantsoa, SD = Saskia Dröge. Date AI analysis = Date chosen for acoustic index analysis.

Village	LUT	Date start recording	Time start recording	Date stop recording	Time stop recording	Date AI analysis	Date point count	Time start point count	Time end point count	Main observer	Second observer
ME	OGF	2018-12-04	08:55:00	2018-12-07	08:11:00	2018-12-05	2018-12-06	05:51:00	06:31:00	ER	SD
ME	OGF	2018-12-04	06:10:00	2018-12-07	08:10:00	2018-12-05	2018-12-04	06:15:00	06:55:00	ER	SD
ME	OGF	2018-12-04	05:46:00	2018-12-07	07:36:00	2018-12-05	2018-12-04	04:53:00	05:33:00	ER	SD
ME	OGF	2018-12-03	15:16:00	2018-12-06	14:35:00	2018-12-04	2018-12-05	04:59:00	05:39:00	ER	SD
ME	OGF	2018-12-03	15:56:00	2018-12-06	15:12:00	2018-12-04	2018-12-05	06:12:00	06:52:00	ER	SD
MT	OGF	2018-11-26	16:10:00	2018-11-30	10:39:00	2018-11-29	2018-11-28	06:17:00	06:57:00	ER	SD
MT	OGF	2018-11-26	15:31:00	2018-11-30	12:18:00	2018-11-29	2018-11-28	04:50:00	05:30:00	ER	SD
MT	OGF	2018-11-27	10:34:00	2018-11-30	08:10:00	2018-11-28	2018-11-29	05:50:00	06:30:00	ER	SD
MT	OGF	2018-11-27	04:50:00	2018-11-30	09:36:00	2018-11-28	2018-11-27	04:57:00	05:37:00	ER	SD
MT	OGF	2018-11-27	06:05:00	2018-11-30	09:24:00	2018-11-28	2018-11-27	06:10:00	06:50:00	ER	SD
V13	FF	2018-10-30	14:15:00	2018-11-02	07:32:00	2018-10-31	2018-11-01	04:53:00	05:33:00	ER	SD
V13	HF	2018-10-30	14:19:00	2018-11-02	08:02:00	2018-10-31	2018-11-01	06:15:00	06:55:00	ER	SD
V13	RP	2018-10-29	19:56:00	2018-11-02	08:13:00	2018-10-31	2018-10-30	06:25:00	07:05:00	ER	SD
V13	VFST	2018-10-30	08:46:00	2018-11-02	09:02:00	2018-11-01	2018-10-31	04:52:00	05:32:00	ER	SD
V13	VFLW	2018-10-30	08:44:00	2018-11-02	08:50:00	2018-11-01	2018-10-31	07:04:00	07:44:00	ER	SD
V13	VFLW	2018-10-29	19:59:00	2018-11-02	07:53:00	2018-10-31	2018-10-30	04:56:00	05:36:00	ER	SD
V13	WF	2018-10-29	07:39:00	2018-11-02	06:07:00	2018-10-31	2018-11-02	04:54:00	05:34:00	ER	SD
V24	FF	2018-11-06	11:46:00	2018-11-09	06:24:00	2018-11-08	2018-11-09	04:57:00	05:37:00	ER	SD
V24	HF	2018-11-05	14:54:00	2018-11-08	18:45:00	2018-11-07	2018-11-08	04:56:00	05:36:00	ER	SD
V24	RP	2018-11-06	04:55:00	2018-11-09	08:18:00	2018-11-08	2018-11-06	05:00:00	05:40:00	ER	SD
V24	VFST	2018-11-06	10:20:00	2018-11-09	07:28:00	2018-11-08	2018-11-07	04:51:00	05:31:00	ER	SD
V24	VFLW	2018-11-05	15:18:00	2018-11-08	19:45:00	2018-11-07	2018-11-08	06:01:00	06:41:00	ER	SD
V24	VFLW	2018-11-06	06:41:00	2018-11-09	10:19:00	2018-11-08	2018-11-06	06:54:00	07:34:00	ER	SD
V24	WF	2018-11-06	11:04:00	2018-11-09	06:52:00	2018-11-08	2018-11-07	06:30:00	07:10:00	ER	SD
V25	FF	2018-11-19	16:16:00	2018-11-22	18:15:00	2018-11-21	2018-10-24	05:01:00	05:41:00	ER	SD
V25	HF	2018-11-20	07:48:00	2018-11-23	11:35:00	2018-11-21	2018-10-23	06:35:00	07:15:00	ER	SD

Table IV: (continued).

V25	RP	2018-10-22	05:04:00	2018-10-25	07:50:00	2018-10-23	2018-10-22	05:08:00	05:48:00	ER	SD
V25	VFST	2018-10-22	10:14:00	2018-10-25	05:45:00	2018-10-23	2018-10-25	04:57:00	05:37:00	ER	SD
V25	VFST	2018-10-22	06:48:00	2018-10-25	06:32:00	2018-10-24	2018-10-22	06:50:00	07:30:00	ER	SD
V25	VFST	2018-10-22	08:18:00	2018-10-25	06:09:00	2018-10-24	2018-10-23	05:01:00	05:41:00	ER	SD
V25	WF	2018-11-19	15:19:00	2018-11-22	12:14:00	2018-11-21	2018-10-24	06:22:00	07:02:00	ER	SD
V2	FF	2018-10-16	05:30:00	2018-10-19	07:03:00	2018-10-18	2018-10-16	05:32:00	06:12:00	ER	SD
V2	HF	2018-11-18	10:51:00	2018-11-23	14:19:00	2018-11-21	2018-10-17	06:16:00	06:56:00	ER	SD
V2	RP	2018-10-16	15:19:00	2018-10-19	07:56:00	2018-10-17	2018-10-18	05:19:00	05:59:00	ER	SD
V2	VFST	2018-10-16	07:05:00	2018-10-19	07:04:00	2018-10-18	2018-10-16	07:09:00	07:49:00	ER	SD
V2	VFLW	2018-10-16	10:08:00	2018-10-19	08:30:00	2018-10-18	2018-10-17	04:57:00	05:37:00	ER	SD
V2	VFLW	2018-10-16	08:34:00	2018-10-19	06:47:00	2018-10-18	2018-10-19	06:00:00	06:40:00	ER	SD
V2	WF	2018-10-15	21:12:00	2018-10-19	07:48:00	2018-10-17	2018-10-18	06:41:00	07:21:00	ER	SD
V39	FF	2018-11-13	15:29:00	2018-11-16	05:36:00	2018-11-14	2018-11-16	04:50:00	05:30:00	ER	SD
V39	HF	2018-11-13	12:00:00	2018-11-16	08:30:00	2018-11-14	2018-11-23	05:53:00	06:33:00	ER	SD
V39	RP	2018-11-13	10:16:00	2018-11-16	07:38:00	2018-11-15	2018-11-16	06:52:00	07:32:00	ER	SD
V39	VFST	2018-11-13	16:38:00	2018-11-16	08:24:00	2018-11-15	2018-11-22	06:29:00	07:09:00	ER	SD
V39	VFLW	2018-11-13	06:35:00	2018-11-16	08:26:00	2018-11-14	2018-11-13	06:42:00	07:22:00	ER	SD
V39	VFLW	2018-11-13	04:55:00	2018-11-16	08:05:00	2018-11-14	2018-11-22	04:51:00	05:31:00	ER	SD
V39	WF	2018-11-13	12:47:00	2018-11-16	08:38:00	2018-11-14	2018-11-23	04:50:00	05:30:00	ER	SD
V40	FF	2018-08-21	15:49:00	2018-08-24	09:13:00	2018-08-22	2018-08-23	07:07:00	07:47:00	ER	DAM
V40	HF	2018-08-21	05:43:00	2018-08-23	10:28:00	2018-08-22	2018-08-21	05:48:00	06:28:00	ER	DAM
V40	RP	2018-08-21	08:20:00	2018-08-24	09:42:00	2018-08-23	2018-08-21	07:34:00	08:14:00	ER	DAM
V40	VFST	2018-08-21	14:43:00	2018-08-24	08:25:00	2018-08-22	2018-08-23	05:39:00	06:19:00	ER	DAM
V40	VFLW	2018-08-21	16:58:00	2018-08-24	07:06:00	2018-08-23	2018-08-24	05:45:00	06:25:00	ER	DAM
V40	VFST	2018-08-21	14:07:00	2018-08-24	08:48:00	2018-08-23	2018-08-22	07:26:00	08:06:00	ER	DAM
V40	WF	2018-08-21	17:14:00	2018-08-24	08:15:00	2018-08-23	2018-08-22	05:45:00	06:25:00	ER	DAM
V45	FF	2018-09-17	14:36:00	2018-09-20	07:30:00	2018-09-18	2018-09-20	06:42:00	07:22:00	ER	DAM
V45	HF	2018-09-18	10:46:00	2018-09-21	08:02:00	2018-09-20	2018-09-21	07:20:00	08:00:00	ER	DAM
V45	RP	2018-09-17	13:39:00	2018-09-20	09:08:00	2018-09-18	2018-09-20	05:18:00	05:58:00	ER	DAM

Table IV: (continued).

V45	VFST	2018-09-18	07:13:00	2018-09-21	11:06:00	2018-09-19	2018-09-18	07:18:00	07:58:00	ER	DAM
V45	VFLW	2018-09-18	14:40:00	2018-09-22	07:04:00	2018-09-21	2018-09-22	06:20:00	07:00:00	ER	DAM
V45	VFLW	2018-09-21	10:41:00	2018-09-25	16:16:00	2018-09-24	2018-09-18	05:20:00	06:00:00	ER	DAM
V45	WF	2018-09-18	16:55:00	2018-09-21	06:00:00	2018-09-20	2018-09-21	05:15:00	05:55:00	ER	DAM
V47	FF	2018-10-18	11:40:00	2018-10-25	07:20:00	2018-10-19	2018-10-09	06:44:00	07:24:00	ER	SD
V47	HF	2018-10-09	08:12:00	2018-10-12	07:07:00	2018-10-10	2018-10-11	05:03:00	05:43:00	ER	SD
V47	RP	2018-10-09	14:12:00	2018-10-12	06:50:00	2018-10-10	2018-10-12	06:03:00	06:43:00	ER	SD
V47	VFLW	2018-10-09	04:57:00	2018-10-12	07:32:00	2018-10-11	2018-10-09	05:04:00	05:44:00	ER	SD
V47	VFLW	2018-10-09	10:24:00	2018-10-12	07:30:00	2018-10-11	2018-10-10	05:00:00	05:40:00	ER	SD
V47	VFLW	2018-10-09	11:07:00	2018-10-12	07:16:00	2018-10-10	2018-10-11	06:07:00	06:47:00	ER	SD
V47	WF	2018-10-09	09:16:00	2018-10-12	07:34:00	2018-10-11	2018-10-10	06:13:00	06:53:00	ER	SD
V7	FF	2018-09-11	10:04:00	2018-09-13	08:03:00	2018-09-12	2018-09-13	07:11:00	07:51:00	ER	DAM
V7	HF	2018-09-11	05:20:00	2018-09-14	08:37:00	2018-09-12	2018-09-11	05:26:00	06:06:00	ER	DAM
V7	RP	2018-09-11	16:45:00	2018-09-14	09:50:00	2018-09-12	2018-09-13	05:17:00	05:57:00	ER	DAM
V7	VFLW	2018-09-11	15:30:00	2018-09-14	09:08:00	2018-09-13	2018-09-12	06:55:00	07:35:00	ER	DAM
V7	VFLW	2018-09-11	13:55:00	2018-09-14	09:53:00	2018-09-13	2018-09-12	05:19:00	05:59:00	ER	DAM
V7	VFLW	2018-09-11	11:51:00	2018-09-14	06:12:00	2018-09-12	2018-09-14	05:17:00	05:57:00	ER	DAM
V7	WF	2018-09-11	06:55:00	2018-09-14	08:56:00	2018-09-12	2018-09-11	06:58:00	07:38:00	ER	DAM
V8	FF	2018-10-02	15:45:00	2018-10-05	07:27:00	2018-10-03	2018-10-05	06:16:00	06:56:00	ER	SD
V8	HF	2018-10-02	14:46:00	2018-10-05	08:24:00	2018-10-03	2018-10-04	05:13:00	05:53:00	ER	SD
V8	RP	2018-10-02	10:48:00	2018-10-05	08:23:00	2018-10-04	2018-10-03	06:33:00	07:13:00	ER	DAM
V8	VFLW	2018-10-05	09:07:00	2018-10-10	09:25:00	2018-10-07	2018-10-02	06:55:00	07:35:00	ER	DAM
V8	VFLW	2018-10-02	09:51:00	2018-10-05	08:43:00	2018-10-04	2018-10-03	05:13:00	05:53:00	ER	SD
V8	VFLW	2018-10-02	15:35:00	2018-10-05	08:20:00	2018-10-03	2018-10-04	06:33:00	07:13:00	ER	SD
V8	WF	2018-10-02	05:09:00	2018-10-05	08:10:00	2018-10-04	2018-10-02	05:19:00	05:59:00	ER	DAM

Table V: Plot variables. Land-use types (LUT): OGF = Old-growth Forest, FF = Forest Fragment, HF = Herbaceous Fallow, RP = Rice Paddy, VFST = Forest-derived Vanilla Agroforests, VFLW = Fallow-derived Vanilla Agroforests, WF = Woody Fallow.

Village		**LUT**	**Plotcode**	**Longitude**	**Latitude**	**Elevation m.a.s.l.**	**Forest area 250 m buffer**	**Basal area [ha]**	**Vegetation Density**
ME	Marojejy East	OGF	ME-PF1	49.832	-14.444	292	0.85581395	34.4955446	0.6
ME	Marojejy East	OGF	ME-PF2	49.829	-14.445	241	0.66210046	22.6903211	0.525
ME	Marojejy East	OGF	ME-PF3	49.826	-14.442	344	0.9543379	59.3573592	0.6125
ME	Marojejy East	OGF	ME-PF4	49.822	-14.448	307	1	31.5988982	0.59583333
ME	Marojejy East	OGF	ME-PF5	49.822	-14.446	292	1	25.0457859	0.62083333
MT	Marojejy Tourist	OGF	MT-PF1	49.778	-14.44	454	0.48401827	61.0852632	0.62222222
MT	Marojejy Tourist	OGF	MT-PF2	49.786	-14.447	348	0.7918552	37.5743291	0.65
MT	Marojejy Tourist	OGF	MT-PF3	49.772	-14.434	580	0.99086758	76.6761942	0.55416667
MT	Marojejy Tourist	OGF	MT-PF4	49.767	-14.435	632	0.92272727	55.5122611	0.66666667
MT	Marojejy Tourist	OGF	MT-PF5	49.763	-14.436	701	0.91203704	43.3704102	0.51666667
V13	Ambodivohitra	FF	V13-FF	49.619	-14.585	609	0.16818182	7.58927803	0.62083333
V13	Ambodivohitra	HF	V13-HF	49.624	-14.583	536	0	0	0.32083333
V13	Ambodivohitra	RP	V13-RP	49.632	-14.592	488	0	0	0.03333333
V13	Ambodivohitra	VFST	V13-VH	49.641	-14.575	819	0.85844749	17.5616291	0.45
V13	Ambodivohitra	VFLW	V13-VL	49.63	-14.569	644	0.42056075	2.00283188	0.45416667
V13	Ambodivohitra	VFLW	V13-VM	49.635	-14.588	506	0.15	6.07481793	0.49166667
V13	Ambodivohitra	WF	V13-WF	49.628	-14.597	520	0	1.69087832	0.59583333
V2	Ambavala	FF	V2-FF	50.055	-14.098	81	0.35813954	24.8558651	0.65833333
V2	Ambavala	HF	V2-HF	50.044	-14.093	91	0.50454546	0	0.44166667
V2	Ambavala	RP	V2-RP	50.065	-14.085	19	0	0	0.02222222
V2	Ambavala	VFST	V2-VH	50.051	-14.1	75	0.41284404	25.0577112	0.33333333
V2	Ambavala	VFLW	V2-VL	50.053	-14.09	69	0.05022831	3.9691412	0.18333333
V2	Ambavala	WF	V2-WF	50.067	-14.092	31	0	1.84410894	0.58333333

Table V: (continued)

V24	Andrakata	FF	V24-FF	49.71	-14.647	557	0.57466063	18.5286216	0.43333333
V24	Andrakata	HF	V24-HF	49.728	-14.631	518	0.26484018	0	0.5375
V24	Andrakata	RP	V24-RP	49.723	-14.629	351	0.28504673	0	0.03333333
V24	Andrakata	VFST	V24-VH	49.715	-14.639	352	0.20547945	18.2322731	0.35
V24	Andrakata	VFLW	V24-VM	49.724	-14.618	303	0.21004566	12.4580215	0.34583333
V24	Andrakata	WF	V24-WF	49.715	-14.646	441	0.17889908	1.46364701	0.67916667
V25	Andramanolotra	FF	V25-FF	50.067	-13.993	54	0.94495413	20.5571311	0.61666667
V25	Andramanolotra	HF	V25-HF	50.106	-13.985	10	0	0	0.2
V25	Andramanolotra	RP	V25-RP	50.095	-13.983	7	0	0	0.08333333
V25	Andramanolotra	VFST	V25-VH	50.08	-13.995	30	0.640553	18.5082167	0.4125
V25	Andramanolotra	VFST	V25-VL	50.093	-13.993	20	0.11415525	15.0787233	0.4375
V25	Andramanolotra	VFLW	V25-VM	50.089	-13.993	24	0.45248869	23.8356763	0.27083333
V25	Andramanolotra	WF	V25-WF	50.069	-13.998	58	0.77522936	5.09851917	0.50416667
V39	Antsahanoro	FF	V39-FF	50.134	-14.845	76	0.22119816	26.6214553	0.65416667
V39	Antsahanoro	HF	V39-HF	50.15	-14.833	45	0	0	0.45
V39	Antsahanoro	RP	V39-RP	50.157	-14.837	18	0	0	0.18333333
V39	Antsahanoro	VFST	V39-VH	50.14	-14.848	155	0.6728972	9.88825824	0.55833333
V39	Antsahanoro	VFLW	V39-VL	50.132	-14.836	29	0	2.29138154	0.13333333
V39	Antsahanoro	VFLW	V39-VM	50.128	-14.839	38	0	17.5542407	0.31666667
V39	Antsahanoro	WF	V39-WF	50.15	-14.83	37	0	3.56477563	0.54583333
V40	Antsikory	FF	V40-FF	50.038	-13.934	57	0.57990868	22.5128816	0.6625
V40	Antsikory	HF	V40-HF	50.019	-13.936	37	0	0	0.64583333
V40	Antsikory	RP	V40-RP	50.011	-13.911	42	0	0	0.02916667
V40	Antsikory	VFST	V40-VH	50.044	-13.927	65	0.69585254	24.5323694	0.62083333
V40	Antsikory	VFLW	V40-VL	50.04	-13.919	46	0.27853881	7.6856222	0.44583333
V40	Antsikory	VFST	V40-VM	50.041	-13.93	87	0.26818182	18.6213251	0.4625
V40	Antsikory	WF	V40-WF	50.033	-13.936	73	0.45662101	0.56914549	0.52083333

Table V: (continued)

V45	Belambo	FF	V45-FF	49.749	-14.551	258	0.01834862	8.52434123	0.63333333
V45	Belambo	HF	V45-HF	49.745	-14.525	263	0	0	0.60416667
V45	Belambo	RP	V45-RP	49.745	-14.542	103	0	0	0.14583333
V45	Belambo	VFST	V45-VH	49.734	-14.532	250	0	10.5662327	0.39583333
V45	Belambo	VFLW	V45-VL	49.769	-14.555	214	0.06422018	5.36280681	0.35416667
V45	Belambo	VFLW	V45-VM	49.738	-14.531	227	0.11415525	10.9644211	0.41666667
V45	Belambo	WF	V45-WF	49.757	-14.538	181	0	1.15288973	0.60416667
V47	Bemanevika	FF	V47-FF	49.948	-13.985	83	0.10454546	27.0230506	0.575
V47	Bemanevika	HF	V47-HF	49.952	-13.986	61	0	0	0.01666667
V47	Bemanevika	RP	V47-RP	49.963	-13.988	47	0	0	0.03333333
V47	Bemanevika	VFLW	V47-VH	49.947	-13.983	69	0.03196347	7.01984477	0.5
V47	Bemanevika	VFLW	V47-VL	49.957	-13.988	68	0	0.59812862	0.21666667
V47	Bemanevika	VFLW	V47-VM	49.953	-13.984	56	0	17.2960606	0.46666667
V47	Bemanevika	WF	V47-WF	49.954	-13.991	90	0	4.12447121	0.58333333
V7	Ambinanifaho	FF	V7-FF	50.126	-14.596	33	0	13.5616379	0.64583333
V7	Ambinanifaho	HF	V7-HF	50.13	-14.606	20	0.03652968	0	0.3
V7	Ambinanifaho	RP	V7-RP	50.113	-14.617	15	0	0	0.01666667
V7	Ambinanifaho	VFLW	V7-VH	50.105	-14.63	107	0	23.8124049	0.39583333
V7	Ambinanifaho	VFLW	V7-VL	50.103	-14.622	56	0.21126761	7.40498777	0.33333333
V7	Ambinanifaho	VFLW	V7-VM	50.133	-14.622	25	0	5.17680903	0.20555556
V7	Ambinanifaho	WF	V7-WF	50.132	-14.61	25	0	7.02695413	0.46666667
V8	Ambodiala	FF	V8-FF	50.084	-14.432	131	0	10.7647777	0.6375
V8	Ambodiala	HF	V8-HF	50.098	-14.413	18	0	0	0.31666667
V8	Ambodiala	RP	V8-RP	50.083	-14.422	45	0	0	0.0625
V8	Ambodiala	VFLW	V8-VH	50.086	-14.413	50	0.10810811	10.3117686	0.29166667
V8	Ambodiala	VFLW	V8-VL	50.09	-14.419	43	0.08219178	11.6972165	0.3875
V8	Ambodiala	VFLW	V8-VM	50.093	-14.418	37	0	15.4174897	0.3125
V8	Ambodiala	WF	V8-WF	50.089	-14.413	40	0	3.31526493	0.52222222

Table VI: Results of the Shapiro-Wilk test and the Kruskal-Wallis test for assessing distribution patterns of the Acoustic Complexity Index (ACI), the inverted Acoustic Evenness Index (1-AEI) and the Acoustic Entropy (H) during the different time intervals (24 hrs; night-time, dawn chorus; daytime) and differences in index values between land-use types. Significant differences marked with stars according to following levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Significant differences between land-use types can be found for all four acoustic indices and during all four different time intervals.

	Index	**Shapiro-Wilk test**		**Kruskal-Wallis test**			
		W	**p**	**Chi squared**	**df**	**p**	
24 hours	**ACI**	0.9156	0.0001	38.9504	6	0.0000	***
	ADI	0.8808	0.0000	28.5389	6	0.0001	***
	1-AEI	0.9912	0.8655	28.3959	6	0.0001	***
	H	0.9675	0.0391	42.5292	6	0.0000	***
Night-time	**ACI**	0.8992	0.0000	28.9569	6	0.0001	***
	ADI	0.8705	0.0000	17.0204	6	0.0092	**
	1-AEI	0.9815	0.3004	17.6866	6	0.0071	**
	H	0.9825	0.3456	27.7100	6	0.0001	***
Dawn chorus	**ACI**	0.9631	0.0208	38.2999	6	0.0000	***
	ADI	0.9185	0.0001	15.5444	6	0.0164	*
	1-AEI	0.9774	0.1684	15.8488	6	0.0146	*
	H	0.9753	0.1238	20.8173	6	0.0020	**
Daytime	**ACI**	0.9426	0.0013	39.1429	6	0.0000	***
	ADI	0.9235	0.0001	52.2614	6	0.0000	***
	1-AEI	0.9615	0.0166	52.6355	6	0.0000	***
	H	0.8739	0.0000	48.3719	6	0.0000	***

Table VII: Differences between land-use types for the Acoustic Complexity Index (ACI), the inverted Acoustic Evenness Index (1-AEI) and the Acoustic Entropy (H) during the 24-hour-time-interval and night-time. Results (p-values) of the pairwise Wilcoxon rank sum test including Bonferroni correction for multiple testing performed in r. Grey colour mark significant differences ($p < 0.05$) between land-use types. Land-use types: OGF = Old-growth Forest, FF = Forest Fragment, HF = Herbaceous Fallow, RP = Rice Paddy, VFST = Forest-derived Vanilla Agroforests, VFLW = Fallow-derived Vanilla Agroforests, WF = Woody Fallow.

		24-Hour						Night-time					
		OGF	**FF**	**VFST**	**VFLW**	**WF**	**HF**	**OGF**	**FF**	**VFST**	**VFLW**	**WF**	**HF**
ACI	**FF**	1.0000						1.0000					
	VFST	1.0000	1.0000					1.0000	1.0000				
	VFLW	0.0341	0.2327	1.0000				1.0000	1.0000	1.0000			
	WF	0.0027	0.0316	1.0000	1.0000			0.0605	0.0605	0.9084	1.0000		
	HF	0.0002	0.0002	0.0005	0.0684	0.0316		0.0005	0.0009	0.0043	0.0578	0.1091	
	RP	0.0002	0.0102	1.0000	1.0000	1.0000	0.3894	0.3085	0.1875	1.0000	1.0000	1.0000	0.7447
ADI	**FF**	1.0000						0.3894					
	VFST	0.2414	1.0000					0.0439	1.0000				
	VFLW	0.0234	1.0000	1.0000				0.1110	1.0000	1.0000			
	WF	0.1091	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000	1.0000		
	HF	0.0027	0.0816	1.0000	1.0000	1.0000		0.0068	1.0000	1.0000	1.0000	1.0000	
	RP	0.0043	0.1437	1.0000	1.0000	1.0000	1.0000	0.4878	1.0000	1.0000	1.0000	1.0000	1.0000
1-AEI	**FF**	0.7447						0.1091					
	VFST	0.1091	1.0000					0.0439	1.0000				
	VFLW	0.0129	1.0000	1.0000				0.0684	1.0000	1.0000			
	WF	0.0221	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000	1.0000		
	HF	0.0027	0.1091	1.0000	1.0000	1.0000		0.0068	1.0000	1.0000	1.0000	1.0000	
	RP	0.0027	0.0816	1.0000	1.0000	1.0000	1.0000	0.3894	1.0000	1.0000	1.0000	1.0000	1.0000
H	**FF**	1.0000						1.0000					
	VFST	1.0000	1.0000					1.0000	1.0000				
	VFLW	0.9223	0.0283	1.0000				1.0000	1.0000	1.0000			
	WF	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000	1.0000		
	HF	0.0152	0.0005	0.0152	0.1296	0.0316		0.0068	0.0439	0.0221	0.1507	0.1875	
	RP	0.0016	0.0002	0.0068	0.0068	0.0068	1.0000	0.0027	0.0102	0.0068	0.0283	0.1875	1.0000

Table VIII: Differences between land-use types for the Acoustic Complexity Index (ACI), the inverted Acoustic Evenness Index (1-AEI) and the Acoustic Entropy (H) during dawn chorus and daytime. Results (p-values) of the pairwise Wilcoxon rank sum test including Bonferroni correction for multiple testing performed in r. Grey colour mark significant differences ($p < 0.05$) between land-use types. Land-use types: OGF = Old-growth Forest, FF = Forest Fragment, HF = Herbaceous Fallow, RP = Rice Paddy, VFST = Forest-derived Vanilla Agroforests, VFLW = Fallow-derived Vanilla Agroforests, WF = Woody Fallow.

		Dawn chorus						**Daytime**					
		OGF	**FF**	**VFST**	**VFLW**	**WF**	**HF**	**OGF**	**FF**	**VFST**	**VFLW**	**WF**	**HF**
ACI	**FF**	0.7447						1.0000					
	VFST	0.0027	0.9084					0.4878	1.0000				
	VFLW	0.0002	0.2019	1.0000				0.0009	0.1110	1.0000			
	WF	0.0002	0.0102	1.0000	1.0000			0.0027	0.2414	1.0000	1.0000		
	HF	0.0002	0.0016	0.2414	0.1296	0.4878		0.0002	0.0009	0.0605	0.0283	0.0605	
	RP	0.0316	1.0000	1.0000	1.0000	1.0000	0.0439	0.0009	0.0439	0.9084	1.0000	1.0000	1.0000
ADI	**FF**	1.0000						1.0000					
	VFST	1.0000	1.0000					0.1875	1.0000				
	VFLW	0.1507	1.0000	1.0000				0.0001	0.0068	1.0000			
	WF	0.9084	1.0000	1.0000	1.0000			0.0009	0.0316	1.0000	1.0000		
	HF	0.0316	1.0000	1.0000	1.0000	1.0000		0.0005	0.0016	0.2414	0.0807	0.2414	
	RP	0.0102	0.3894	1.0000	0.3985	1.0000	1.0000	0.0002	0.0009	0.0439	0.0027	0.0102	1.0000
1-AEI	**FF**	1.0000						0.7447					
	VFST	1.0000	1.0000					0.1875	1.0000				
	VFLW	0.0948	1.0000	1.0000				0.0001	0.0012	0.7348			
	WF	0.7447	1.0000	1.0000	1.0000			0.0016	0.0439	1.0000	1.0000		
	HF	0.0316	0.9084	1.0000	1.0000	1.0000		0.0005	0.0043	0.1875	0.1747	0.2414	
	RP	0.0152	0.3894	1.0000	0.4527	1.0000	1.0000	0.0002	0.0005	0.0316	0.0016	0.0027	1.0000
H	**FF**	1.0000						1.0000					
	VFST	1.0000	1.0000					1.0000	1.0000				
	VFLW	0.6534	0.1507	1.0000				0.0193	0.0001	0.3062			
	WF	1.0000	1.0000	1.0000	1.0000			1.0000	0.1437	1.0000	0.5129		
	HF	0.0816	0.0102	0.6049	1.0000	0.6049		0.0005	0.0002	0.0027	0.0129	0.0043	
	RP	0.0816	0.0152	0.2414	0.4527	0.1437	1.0000	0.0002	0.0002	0.0016	0.0001	0.0005	1.0000

Table IV: Results of correlation analysis between bird species richness and the Acoustic Complexity Index (ACI), the Acoustic Diversity Index (ADI), the inverse Acoustic Evenness Index (1-AEI) and the Acoustic Entropy (H). Based on the lower AIC value, we used a linear or polynomial model to assess a correlation. The correlation is significant for all time intervals except one with a positive and stronger correlation between bird species richness, ADI, 1-AEI and H during daytime.

	Index	**AIC lin**	**AIC polyn**	**Best fit**	**F**	**Res. standard error**	**adj R^2**	**Cohen f^2**	**p**	
24 hours	ACI	711.64	713.57	Linear	5.58	20.16	0.05	0.06	0.0206	*
	ADI	75.59	73.81	Linear	13.77	0.38	0.14	0.16	0.0004	***
	1-AEI	-101.99	-102.22	Linear	13.42	0.12	0.14	0.16	0.0005	***
	H	-275.79	-282.30	Polynomial	13.87	0.04	0.25	0.33	0.0000	***
Night	ACI	769.66	770.04	Linear	9.21	28.98	0.09	0.10	0.0033	**
	ADI	67.55	68.78	Linear	7.30	0.36	0.07	0.08	0.0085	**
	1-AEI	-81.45	-80.13	Linear	11.45	0.14	0.12	0.13	0.0011	**
	H	-265.75	-267.58	Linear	9.28	0.04	0.09	0.10	0.0032	**
Dawn chorus	ACI	768.54	768.38	Linear	6.10	28.78	0.06	0.06	0.0157	*
	ADI	77.22	73.81	Polynomial	6.30	0.37	0.12	0.13	0.0029	**
	1-AEI	-75.83	-76.25	Linear	3.88	0.15	0.04	0.04	0.0523	
	H	-239.63	-242.53	Polynomial	5.10	0.05	0.09	0.10	0.0083	**
Day	ACI	684.34	686.34	Linear	3.76	17.11	0.07	0.07	0.0277	*
	ADI	128.37	119.18	Polynomial	25.57	0.49	0.38	0.62	0.0000	***
	1-AEI	-96.75	-99.76	Polynomial	17.74	0.13	0.30	0.42	0.0000	***
	H	-176.77	-193.08	Polynomial	26.36	0.07	0.39	0.64	0.0000	***

Fig. II: Correlation between the Acoustic Complexity Index (ACI), Acoustic Diversity Index (ADI), the inverse Acoustic Evenness Index (1-AEI) and the Acoustic Entropy (H). The correlation is significant between all acoustic indices except between ACI and ADI with a strong positive relationship between the ADI, 1-AEI and H.