Science Advances

Supplementary Materials for

Automated audiovisual behavior recognition in wild primates

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The PDF file includes:

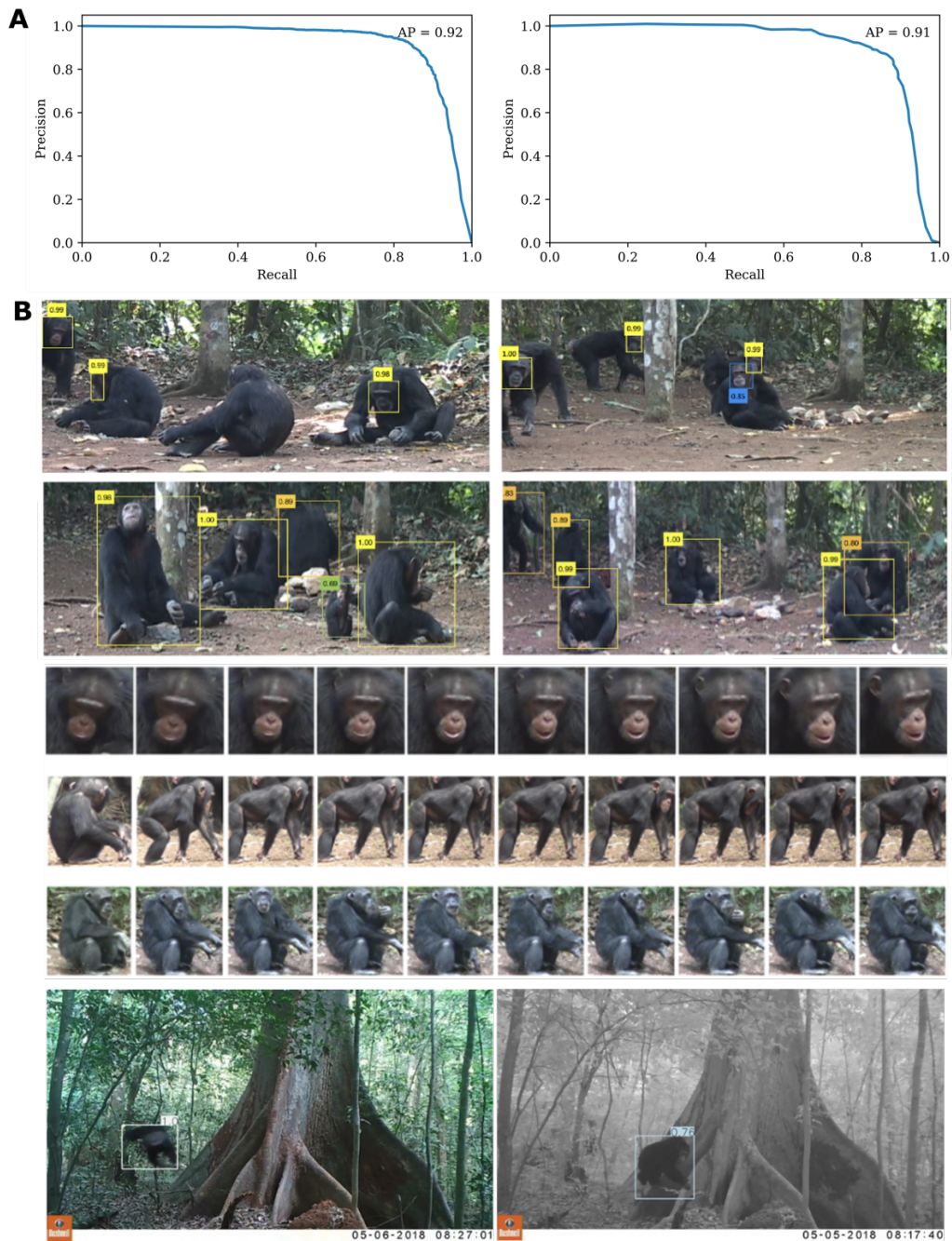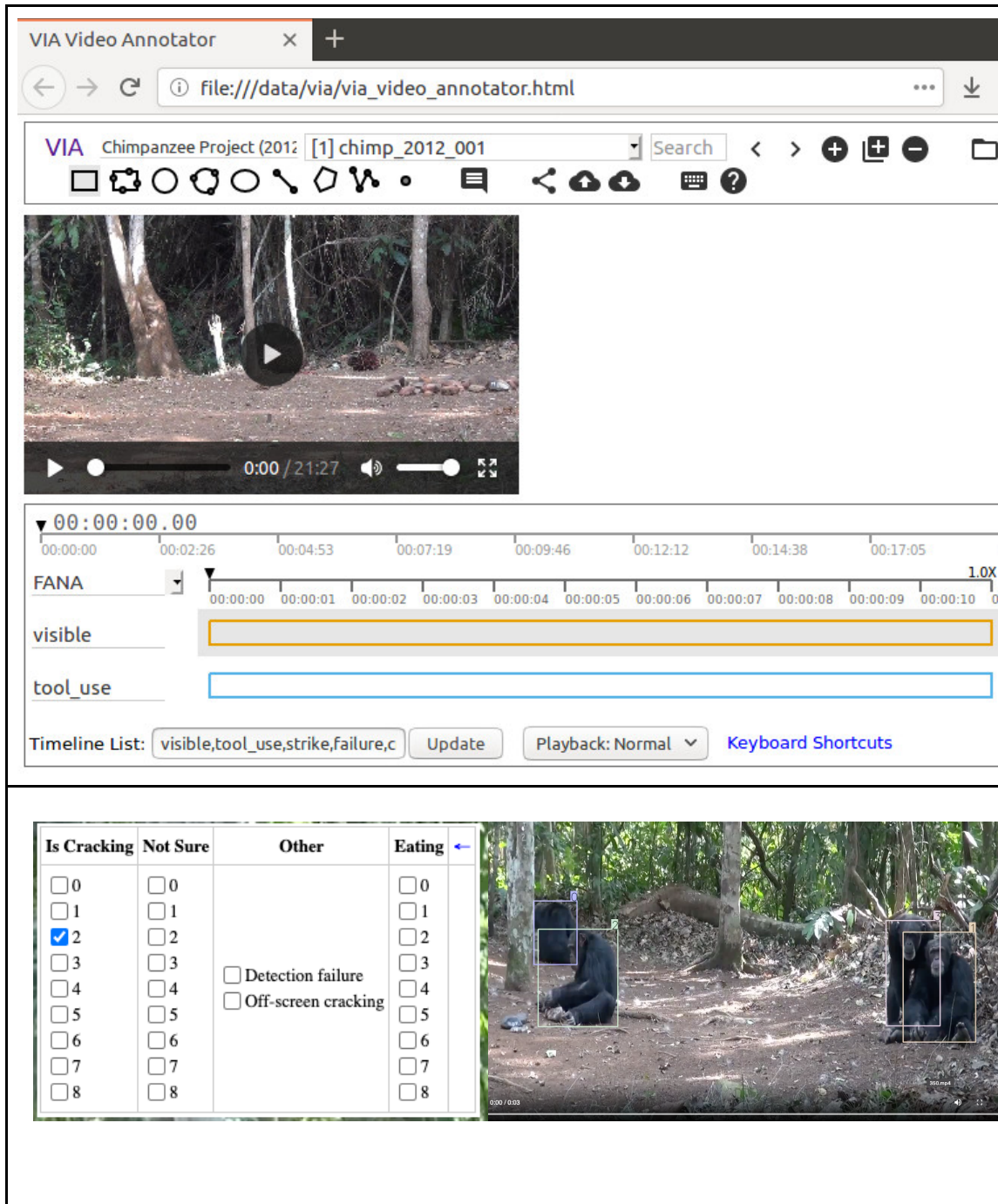Supplementary Text
Figs. S1 to S3
Table S1
Legend for Movie S1

Other Supplementary Material for this manuscript includes the following:
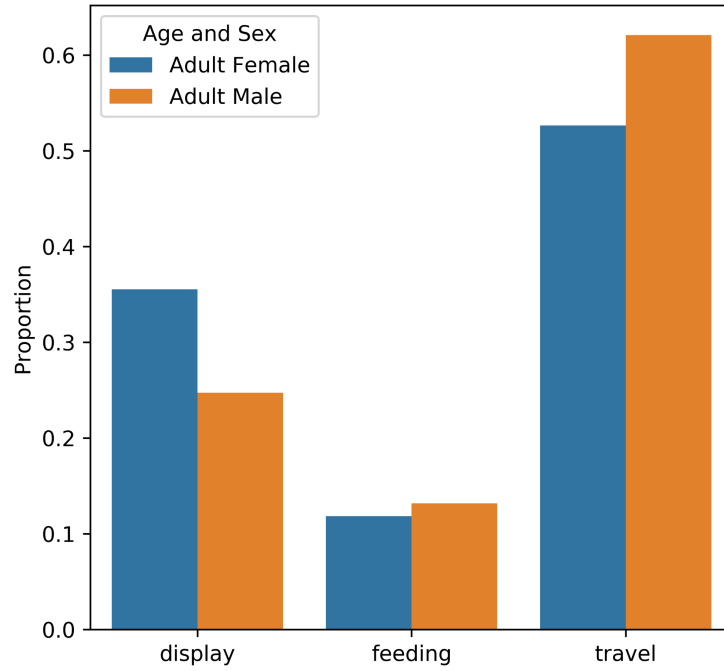
Movie S1

Fig. S1. Detection and Tracking Results: (A) Precision Recall Curves for the individual body detectors for Bossou (left) and Cantanhez (right), with their Average Precision (AP) scores labelled. (B) Qualitative examples of detections (detector confidences shown above each detection) and body tracks on both the Bossou and Cantanhez video footage. Photo credit: Kyoto University, Primate Research Institute; The Cantanhez Chimpanzee Project

Fig. S2. Screenshots of the annotation tool, the VGG Image Annotator (VIA). VIA is a browser based, open-source annotation software which we modified for this purpose, facilitating temporal annotation of video.

Fig. S3. Proportion of buttress-drumming bouts by context for Adult Males and Females. Context here consists of agnostic display, feeding and travel. Proportions for each context are approximately equal for both males and females.

Table S1. Training and Testing Data Statistics for (A) Nut-Cracking and (B) Buttress-Drumming for the Bossou and Cantahez video footage respectively.

(A)	Split	Sampled Years	Duration of video (hours)	# Nut-cracking Sequences	# Tracklets	# Tracklets containing *nut-cracking*
	Training	2012	10.5	864	11,400	508
	Training (Audio proposals)	2004, 2008, 2012	1.9	1,455	9,564	1,786
	Testing	2013	2.6	417	3,699	154
	Analysis	2012, 2013	13.1	1,281	15,099	662

(B)	Split	Sampled Communities	Duration of video (hours)	# Drumming Bouts	# Tracklets	# Tracklets containing *drumming*
	Training	Cabante, Caiquene-Cadique	32.8	778	2,526	1,249
	Testing	Lautchande	1.7	166	521	191
	Analysis	Cabante, Caiquene-Cadique, Lautchande, Cambeque	10.8	1,251	-	-

Movie. S1. Demonstration of automatic behaviour classification pipeline to example videos. Videos are first processed by the body detection tracking stage, followed by audiovisual behaviour classification.