

Supplementary Materials

Table S1. Spatial and temporal location of each flight performed. (R) and (D) after site name indicate flight performed over riparian vegetation (R) and over adjacent desert scrub (D). SMH is the abbreviation for San Miguel de Horcasitas municipality.

Site	County	Flight date	Orthomosaic area (m ²)	Digitalized area (m ²)	Coordinate system (12N UTM)	
					Long	Lat
Aguilar Ranch (R)	Rayón	13/08/16	70,000	56,700	542928	3273587
Cienega (R)	Cucurpe	11/09/16	52,000	37,800	527575	3367150
Cercos vivos (R)	Cucurpe	23/09/16	46,000	36,000	527792	3347829
El cajon (R/D)	SMH	08/08/16	71,000	57,600	525305	3260514
Nogalera (R/D)	SMH	08/08/16	77,000	63,000	516381	3247408
Aguilar Ranch (D)	Rayón	13/08/16	44,000	42,300	542689	3273563
Galera (R)	Rayón	21/08/16	68,000	49,500	543372	3276731
Galera (D)	Rayón	21/08/16	27,000	23,400	543564	3276741
San Juan Ranch (R)	Opodepe	03/09/16	51,000	37,800	532550	3318453
Cienega (D)	Cucurpe	11/09/16	43,000	34,200	527748	3367093
Cercos vivos (D)	Cucurpe	21/09/16	38,000	27,900	527662	3347856
Tomas Ranch (R)	Opodepe	17/10/16	39,000	27,000	532661	3319181
Tomas Ranch (D)	Opodepe	17/10/16	40,000	31,500	532548	3319217

Table S2. Flight requirements and image specifications

Environmental conditions	Clear sky (less than 10% clouds), air temperature below 40°C, wind speed less than 10 m/s
Type of UAV	Quadcopter
UAV speed	~20 km/h
Sensor	FC 350 4000x2250 (RGB) camera
Field of view	94°
Area covered on each image	~2600 sq m
Number of images per flight	~150
Flight height	70 meters
Flight trajectory	6 lines of 250 meters long and 35 meters apart
Spatial resolution (orthomosaic)	~3 cm

Table S3. Characteristics of Landsat 8 scenes.

Path and Row	Date for dry season	Date for wet season	Spatial resolution
35/39	May/27/2016	September/16/2016	30 x 30 m
35/40	May/11/2016	September/16/2016	30 x 30 m