Supplementary Materials

Table S1. Sentinel-2 scenes used in this study, with indication of the estimated height of the water at Bubaque at the time of image acquisition and of the corresponding tidal stage.

Image	Date	Sensor	Water Height at Image Acquisition (m)	Tidal Stage
1	06/12/17	S2B	4.34	Rising
2	26/12/17	S2B	1.62	Rising
3	10/01/18	S2A	1.39	Rising
4	15/01/18	S2B	2.9	Ebbing
5	20/01/18	S2A	3.88	Rising
6	25/01/18	S2B	1.37	Rising
7	30/01/18	S2A	3.07	Ebbing
8	09/02/18	S2B	1.52	Rising
9	19/02/18	S2A	3.97	Rising
10	01/03/18	S2A	3.69	Ebbing
11	06/03/18	S2B	3.6	Rising
12	21/03/18	S2A	4.01	Rising
13	31/03/18	S2A	4.04	Ebbing
14	05/04/18	S2B	3.36	Rising
15	15/04/18	S2B	3.76	Ebbing
16	25/04/18	S2B	1.35	Ebbing
17	30/04/18	S2A	4.23	Ebbing
18	10/05/18	S2A	1.66	Ebbing
19	21/11/19	S2A	1.1	Rising
20	26/11/19	S2B	3.79	Ebbing
21	01/12/19	S2A	3.15	Rising
22	06/12/19	S2B	1.52	Ebbing
23	21/12/19	S2A	1.04	Ebbing
24	26/12/19	S2B	3.87	Ebbing
25	05/01/20	S2B	1.52	Rising
26	04/02/20	S2B	1.55	Ebbing
27	14/02/20	S2B	2.72	Rising
28	29/02/20	S2A	2.87	Rising
29	05/03/20	S2B	1.69	Ebbing
30	15/03/20	S2B	2.51	Rising
31	20/03/20	S2A	2.17	Ebbing
32	30/03/20	S2A	2.84	Rising
33	04/04/20	S2B	1.78	Ebbing
34	09/04/20	S2A	4.69	Ebbing
35	19/04/20	S2A	2.45	Ebbing

Table S2. Estimated and measured tide delay (minutes). Measured delays were provided by Portuguese Hydrographic Institute at four locations: Abú, Bruce, Eguba and Uno, see Figure 1. The mean absolute difference is 6.6 min (n = 5).

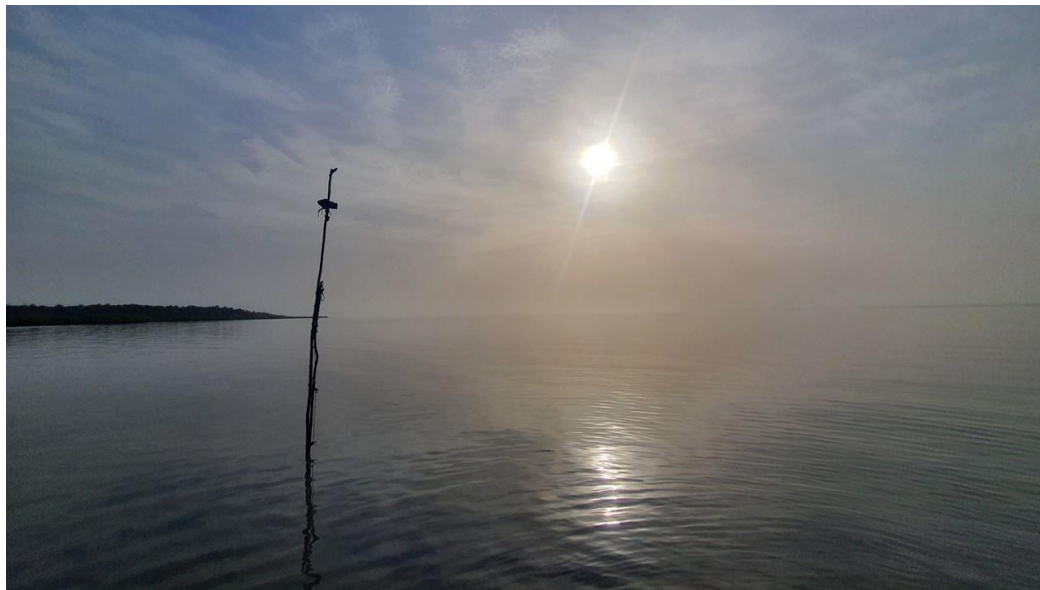| Name	Location	Difference in Tidal-Stage (min)	
		Estimated by the Model	**Provided by the HYDROGRAPHIC Institute**
Abú	11°27.3′N; 15°54.2′W	25	40
Bruce	11°12.1′N; 15°50.3′W	−24	−15
Eguba	11°19.7′N; 16°01.5′W	9	5
Uno	11°14.5′N, 16°09.7′W	−16	−20
Bubaque	11°18.1′N; 15°50.0′W	1	0

Figure S1. Time-lapse cameras pointing down and set to detect the exposure period of intertidal sampling points.
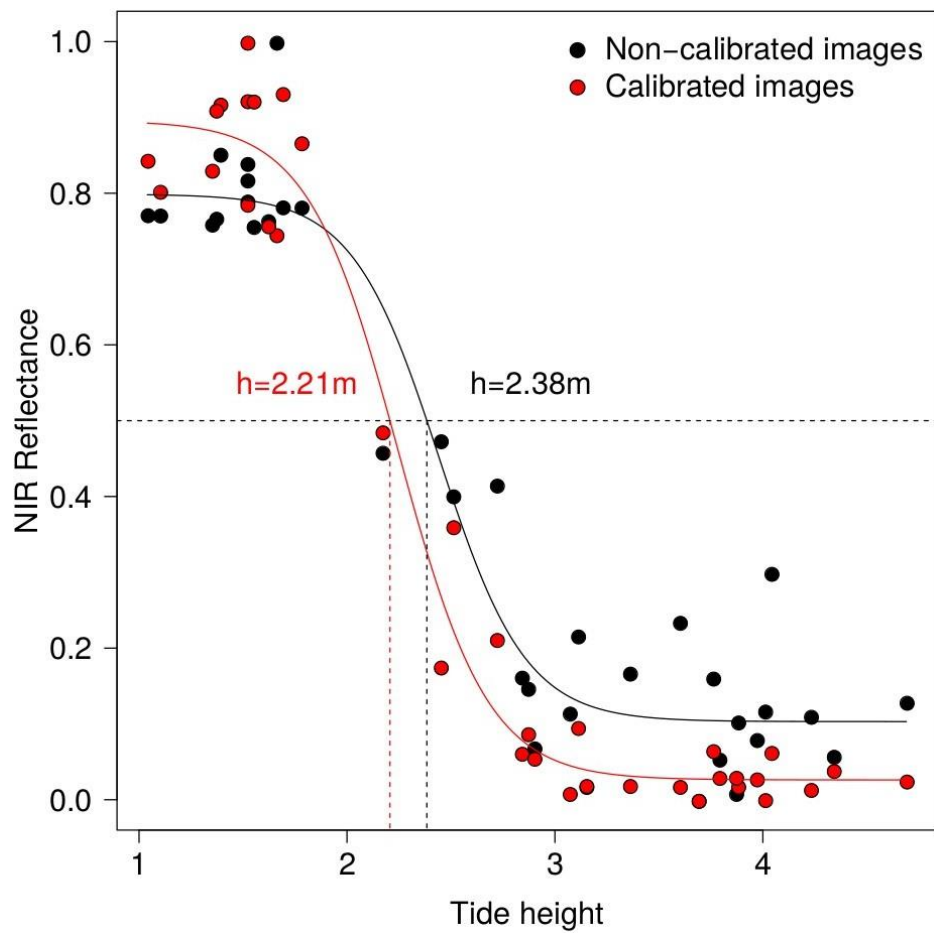
Figure S2. Example of the application of the logistic function to reflectance of a sample pixel, using images that were (red dots) and were not inter-calibrated (black dots), and its effects on the estimation of the height of the pixel. Note the reduction in variability, particularly on lower values of NIR reflectance.
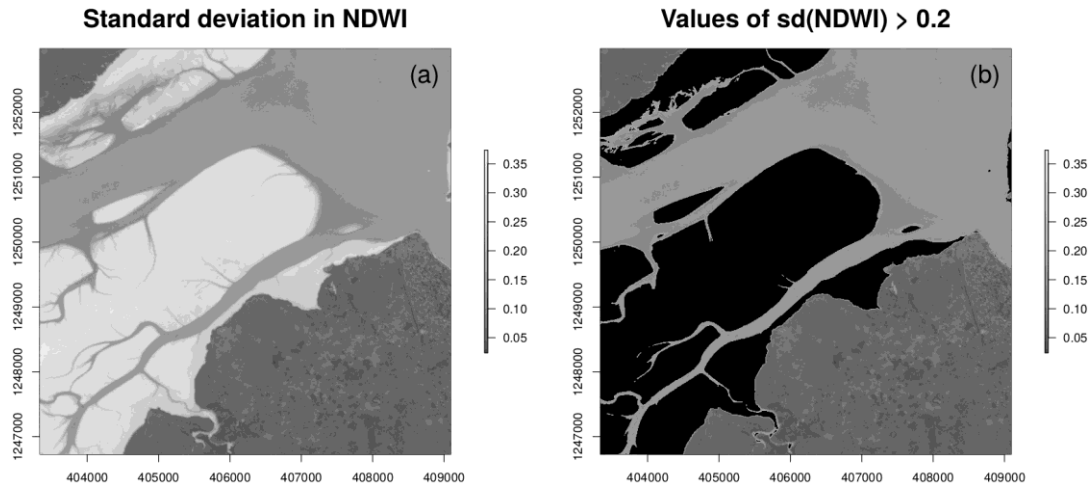
Figure S3. Temporal variability of the *NDWI* of the 35 Sentinel-2 scenes in a small part of the study area (**a**), showing the clear distinction between land (darker regions, with low variability), water (medium variability) and intertidal areas (clear colors, corresponding to high variability). Panel (**b**) shows the areas with values of variability higher than 0.2 (see methods).
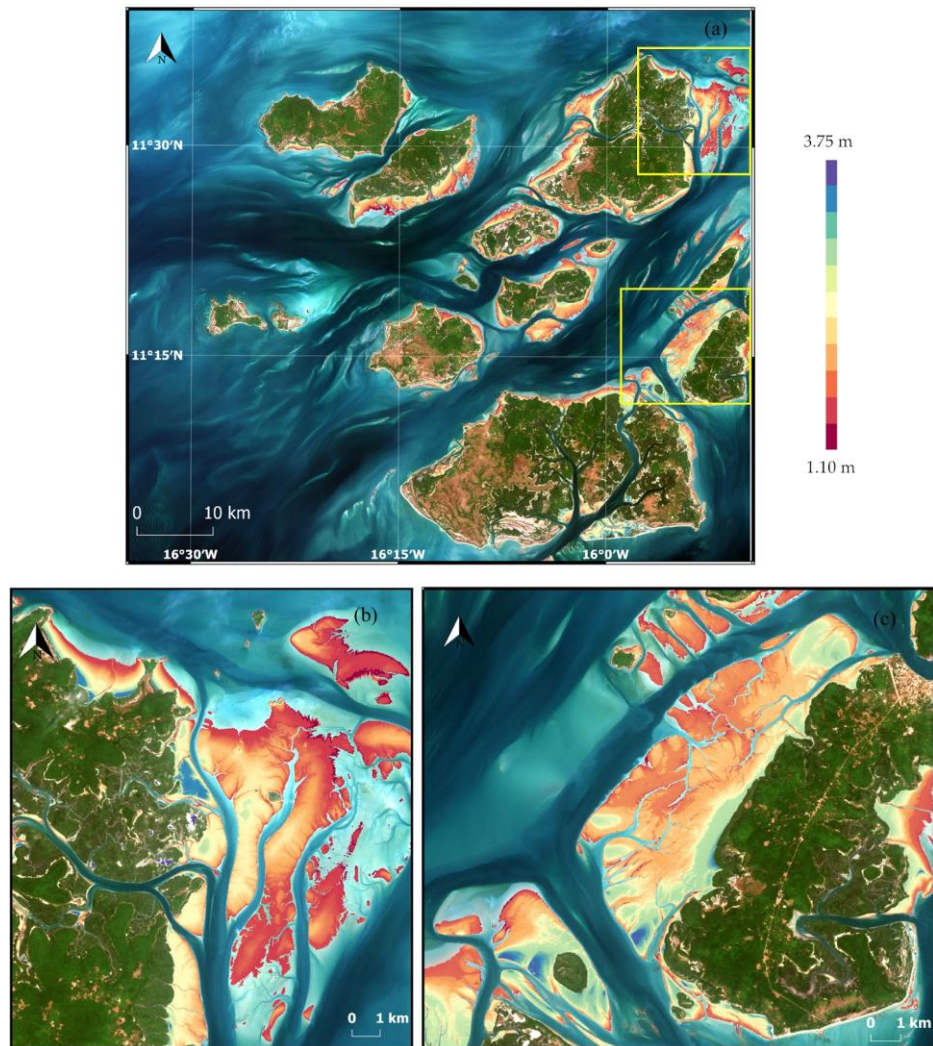

Figure S4. DEM of the Bijagós archipelago obtained by recalculation of height of water at each pixel in all images, according to the tide-stage differences estimated for each pixel.