

Fig. S1. Change in the mean heart rate during each dive following saline (open) and atropine (squares) injection. Each line with markers indicates for each turtle in each treatment. Individual turtles are represented by different colours. The dashed line indicates time at 40 min when the heart rate was seemed to be stabilized after the injection. bpm: beats per minute.

Figure S2.

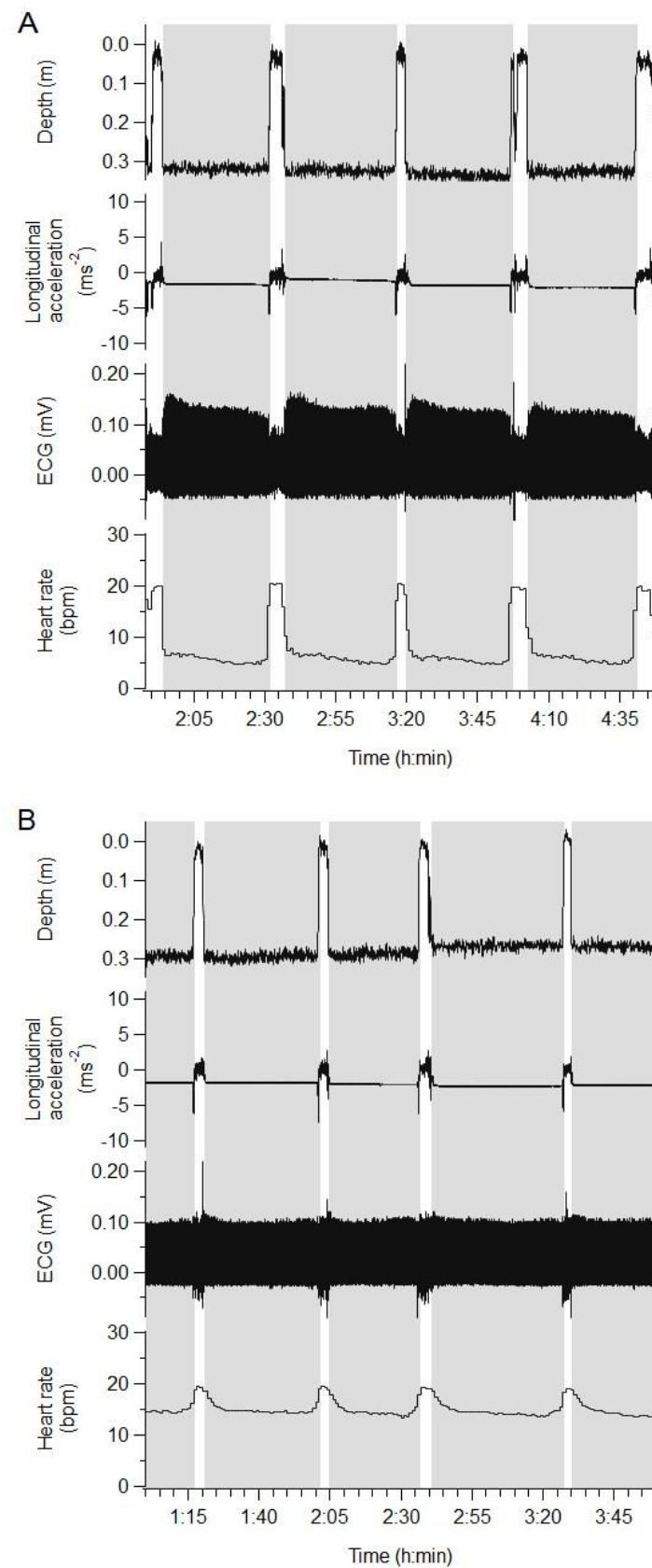


Fig. S2. Depth, longitudinal acceleration, ECG, and heart rate profiles of turtle L2013 following (A) saline and (B) atropine injection. Shaded areas indicate diving, and others indicate moving at the surface. bpm: beats per minute.

Figure S3.

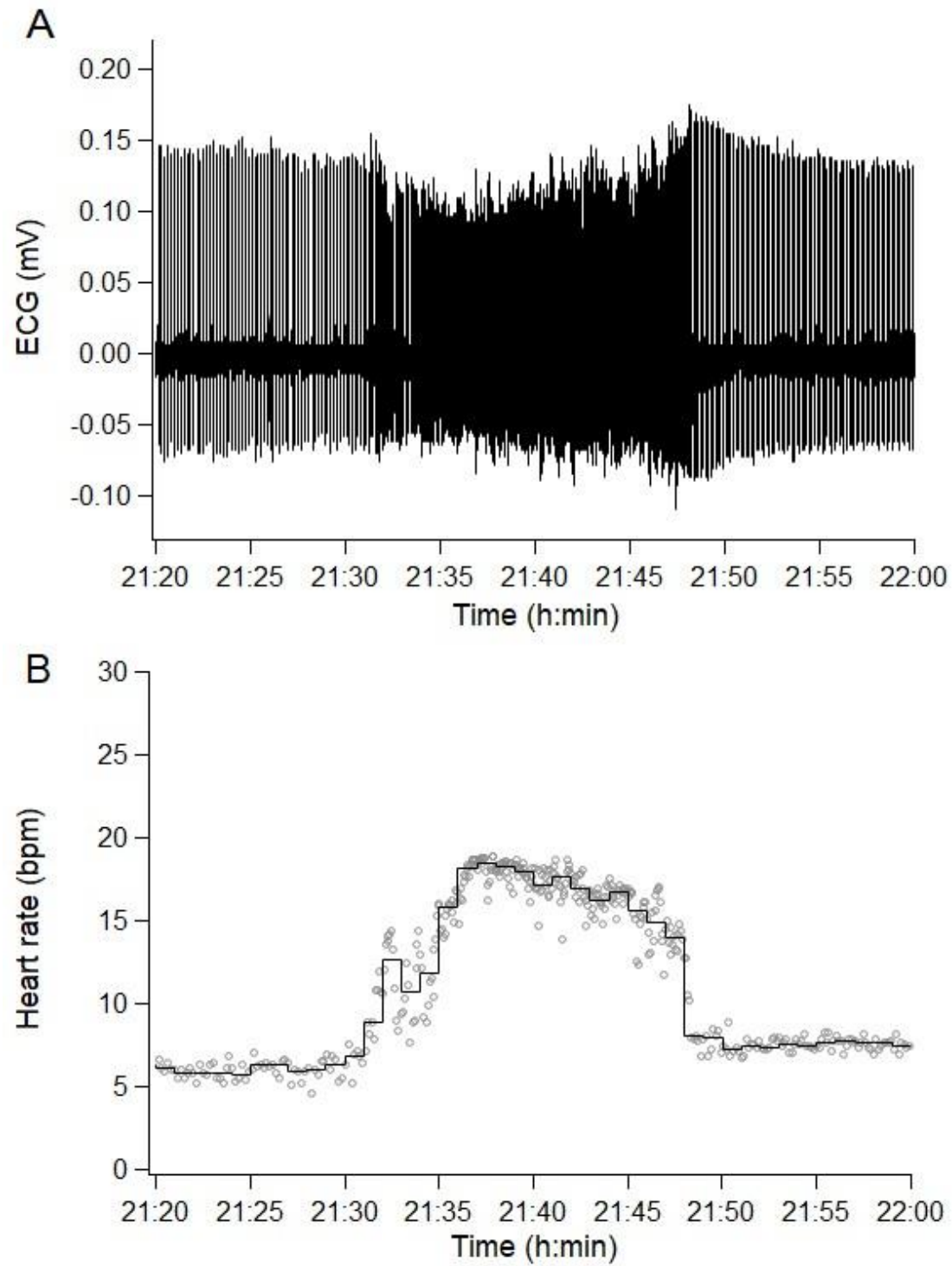


Fig. S3. (A) ECG and (B) heart rate profiles while moving at the surface (21:32–21:47) of turtle L2023 and for 10 min before and after. In the bottom figure, open circles indicate instantaneous heart rates, and a solid line indicates the median heart rates per minute. bpm: beats per minute.

Table S1. Summary of the linear mixed-effects models to determine the factors affecting heart rate and duration when diving and moving at the surface. Treatment indicates saline- and atropine-injected groups. * indicates a significant factor ($P < 0.05$). AIC: Akaike's information criterion.

Response variable	AIC	Explanatory variables	Estimate	Standard error	<i>t</i>	d.f.	<i>P</i>	
Heart rate when diving	390.3	Treatment	8.16	0.37	22.32	85.94	< 0.001	*
		Body mass	-0.01	0.19	-0.03	5.99	0.977	
		Water temperature	1.29	0.28	4.70	90.08	< 0.001	*
		Intercept	-18.58	12.67	-1.47	8.59	0.178	
Heart rate when moving at the surface	448.6	Treatment	4.02	0.50	8.06	86.02	< 0.001	*
		Body mass	-0.08	0.22	-0.37	6.08	0.722	
		Water temperature	0.65	0.37	1.74	91.10	0.085	
		Intercept	7.31	15.17	0.48	9.70	0.640	
Dive duration	655.9	Treatment	-4.94	1.71	-2.89	89.34	0.005	*
		Body mass	-0.51	0.19	-2.67	13.24	0.019	*
		Water temperature	1.34	0.92	1.46	19.96	0.160	
		Intercept	41.79	21.06	1.98	17.15	0.063	
Surface duration	683.2	Treatment	-1.87	1.92	-0.98	85.71	0.332	
		Body mass	0.19	0.35	0.55	5.99	0.604	
		Water temperature	-0.97	1.30	-0.75	57.86	0.459	
		Intercept	19.40	32.81	0.59	17.59	0.562	