

## Supplementary information: Robust, real-time and autonomous monitoring of ecosystems with an open, low-cost, networked device

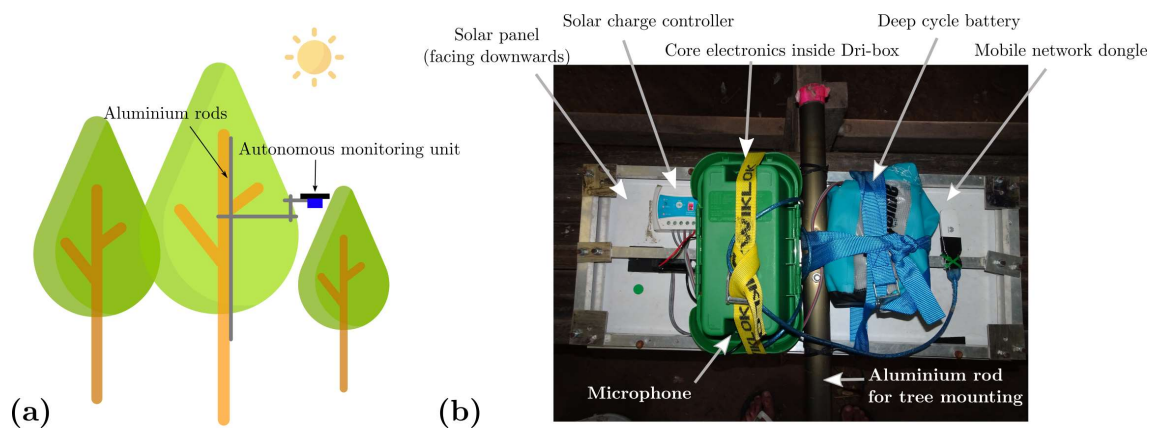


Figure S1: **Canopy mounting of the autonomous monitoring unit.** Here we display how the autonomous acoustic monitoring units were mounted in the canopy at SAFE Project. **(a)** A series of aluminium rods were affixed to the tree to allow the solar panel to reach direct sunlight out of the shade of the canopy. **(b)** A close-up view of the inverted monitoring unit with all components attached.

Table S1: **Autonomous monitoring unit cost breakdown.** Parts list and typical costs for one autonomous ecosystem monitoring unit assembled in the UK, as of August 2017. In this case the system is configured for acoustic monitoring.

<b>Item</b>	<b>Cost (GBP)</b>
<i><b>One-off costs</b></i>	
Raspberry Pi A+	£21.59
SanDisk 64GB SD card	£17.39
Huawei E3531 3G dongle	£21.00
Dri-box weatherproof box	£10.09
Anker powered USB hub	£20.00
12V to 5V DC step down converter	£6.29
12V 10Ah AGM deep-cycle battery	£23.98
Solar charge controller	£10.99
30W solar panel	£45.08
<i><b>Audio sensor costs</b></i>	
Ugreen USB audio card	£6.99
Rode SmartLav + electret microphone	£44.00
<i><b>Operational costs</b></i>	
60GB data sim card	£30.00 per month
<b>Total</b>	<b>£227.40 + £30 per month</b>