

Table S1. Details of recommended animal, instrument, and data characteristics to report in manuscripts.

Characteristic	Description	Example
Animal characteristics		
Species	Scientific and common names of the animal carrying instruments.	<i>Mirounga angustirostris</i>
# of devices deployed on the individual	The number of instruments the animal is carrying during this deployment. Characteristics should be reported for each instrument.	2 (VHF + accelerometer)
Animal deployment history	Number of times the individual has been instrumented, including the current deployment.	3 (2 previous + current deployment)
Animal handling time	Amount of time spent being handled, with notes on outliers	
Device characteristics		
Type of instrument	A general description of the type of instrument being deployed.	Jaw accelerometer, CTD, GPS collar
Location on body	Placement of the instrument on the animal's body.	Back, neck, tarsus
Weight	Weight of the instrument in air.	100g
% of animal body mass	Approximate ratio of instrument mass to animal mass.	3%
Dimensions	Length, width, and height of the instrument.	10x15x5 mm
Cross sectional shape	Cross sectional measurements of the instrument. Include whether the instrument is streamlined or complex.	Streamlined rectangular shape, fusiform corners
Material	Material for instrument housing.	Plastic housing, syntactic foam, epoxy
Antennae	Presence of a flexible or hard external antenna.	Flexible antennae
Buoyancy	Buoyancy of the instrument in seawater or freshwater.	Positive, negative, neutral
Orientation	Direction of instrument on the animal.	Antennae towards 0 degrees (head of the animal)
Manufacturer	Instrument manufacturer.	Self manufactured
Model #	Instrument model number.	0001
Sensors	Parts of the instrument that collect data.	Temperature sensor
Attachment method	Method for attaching the instrument to the animal. Include whether the instrument is sub or ex cutaneous.	Epoxied to fur, harnessed with tape, suctioned to skin
Detachment method	Method for detaching the tags.	Pop off/weak link, removed by hand
Handling process	Description of typical handling process, including drugs used and time spent in human care. Cite relevant permits.	Chemical immobilization with ketamine
Duration of deployment	Length of time that the animal will carry the instrument.	72 days
Signal production	Sounds, lights, magnetism, or other signals produced by the instrument.	Solid red light, bubbles
Photographs	Relevant photographs of instruments, placement, attachment, etc. included in a standard format (i.e. jpeg).	Placement.jpeg, deployment.jpeg, retrieval.jpeg

Data characteristics		
Data recovery	How instrument data will be recovered.	Transmitting, archival, both
Instrument data format	File type of raw data output.	
Instrument data location	Location of raw and processed data, including DOIs.	Dryad repository
Other essential data	Instrument calibrations and metadata that might be needed to analyze the raw or processed data, including details such as time zone.	
Other essential data location	Location of calibrations and other metadata.	
Tag failure?		