

Online Table 1 Description of fields (column names) in the metadata and data files.

Column name	Description
<i>Metadata file</i>	
dataset_identifier	The unique identifier of the source dataset.
file_name	Name of the raw data file containing tracking data provided by data contributors.
individual_id	Unique individual ID for each track.
keepornot	Whether the individual track is retained (Keep) or discarded (Discard) in the final SSM output (see “Data Assemblage - Step 3. Data trimming”).
scientific_name	Scientific name of the species tracked.
common_name	English common name of the species tracked.
abbreviated_name	Four-letter abbreviation identifying the species tracked (see Table 1).
sex	Sex of the tracked individual (F = female, M = male, U = unknown).
age_class	Age class of the tracked individual (Adult, Fledgling, Subadult, Yearling, Underyearling, Unknown).
device_id	ID of the tracking device.
device_type	Type of tracking device used (GLS = Global Location Sensor, GPS = Global Positioning System; PTT = Platform Terminal Transmitter).
deployment_site	Name of deployment site.
deployment_year	Four-digit year of device deployment.
deployment_month	Ordinal month of device deployment (1–12).
deployment_day	Integer day of the month of device deployment (1–31).
deployment_time	Time of day (Coordinated Universal Time, UTC) of device deployment (hours:minutes).
deployment_decimal_longitude	Longitude of deployment site (decimal degrees; –180 to 180).
deployment_decimal_latitude	Latitude of deployment site (decimal degrees).
data_contact	Name of the data contact(s).
contact_email	E-mail address of the data contact(s).

comments	Comments.
<i>Standardized data files</i>	
individual_id	Unique individual ID for each track.
abbreviated_name	Four-letter abbreviation identifying the species tracked (see Table 1).
breeding_stage	Breeding stage/status of the individual tracked.
year	Four-digit year of the location record.
month	Ordinal month of the location record (1–12).
day	Integer day of the month of the location record (1–31).
time	Time of day of the location record (hh:mm:ss), expressed in Coordinated Universal Time (UTC).
decimal_latitude	Latitude of location record (decimal degrees).
decimal_longitude	Longitude of location record (decimal degrees; –180 to 180).
location_quality	If tracking device (device_type) is PTT, the Argos location quality of the location record.
location_to_keep	Whether the location record is used (1) or ignored (0) when fitting the state-space model.
<i>Filtered data files</i>	
individual_id	Unique individual ID for each track.
abbreviated_name	Four-letter abbreviation identifying the species tracked (see Table 1).
breeding_stage	Breeding stage/status of the individual tracked.
date	Date and time of the location estimate, expressed in Coordinated Universal Time (UTC).
decimal_longitude	Longitude of location estimate (decimal degrees; –180 to 180).
decimal_latitude	Latitude of the location estimate (decimal degrees).
longitude_se	Standard error of the longitude estimate (degrees)
latitude_se	Standard error of the latitude estimate (degrees)

The metadata file contains single comma-separated values (CSV) for each record (row) per tracked individual, and twenty-one columns, with names indicated in a header row. The data files are a set of seventeen CSV files (one per species) containing one record (row) per location for all individuals of that species, with eleven columns named in a header row. The metadata records can be linked to records in the tracking data files by the *individual_id* column. (From: The retrospective analysis of Antarctic tracking data project)