SMASS Database

A very brief and very quick overview

SMASS
Scottish Marine Animal Stranding Scheme

University of Glasgow

SMASS Data – the story so far

- Strandings in Scotland since 1992
- Baseline + Necropsy Data entry into UK wide CSIP
  - Plus some extras
- Separation of schemes requirement for database development
  - Glasgow University Software Services (GUSS)
- Development & user journey
  - Considerations for discussions later this morning

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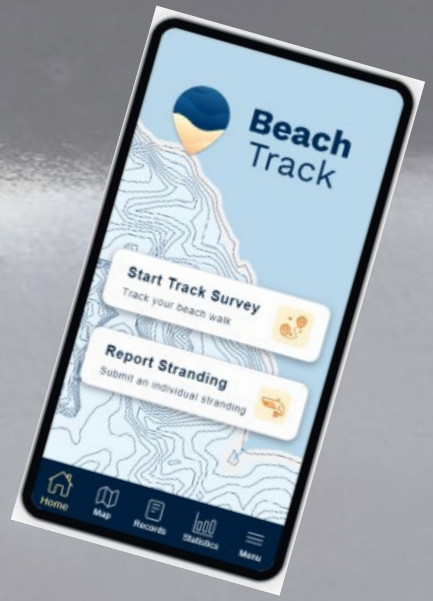
- Oppertunistic surveillance
  - Phone
  - WhatsApp/Text
  - Email
  - Social media (Facebook/Twitter)
  - Beachtrack App



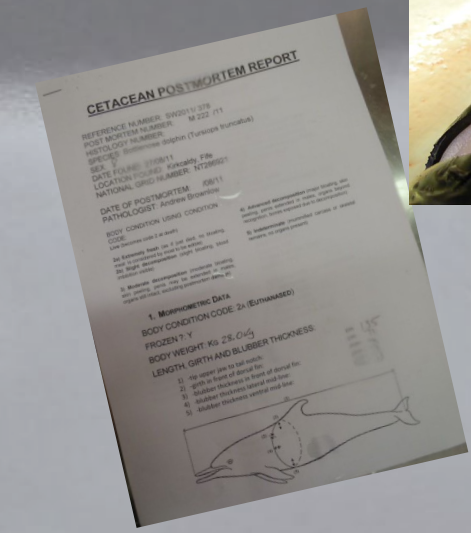
- Triage
  - Subset necropsy
  - Sample/measured by trained volunteers
  - Data point – no action

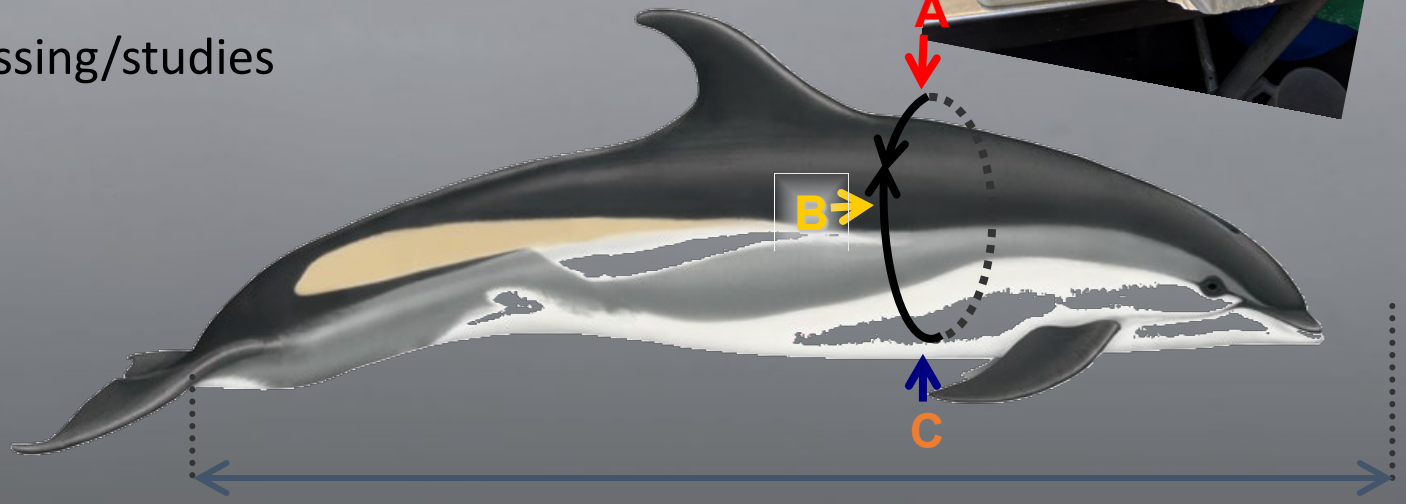
- Minimum; what, where, when
  - Photographs!!

- Maximise information
  - Sex, measurements, etc - photographs
  - Volunteer network

Necropsy & Sampled cases

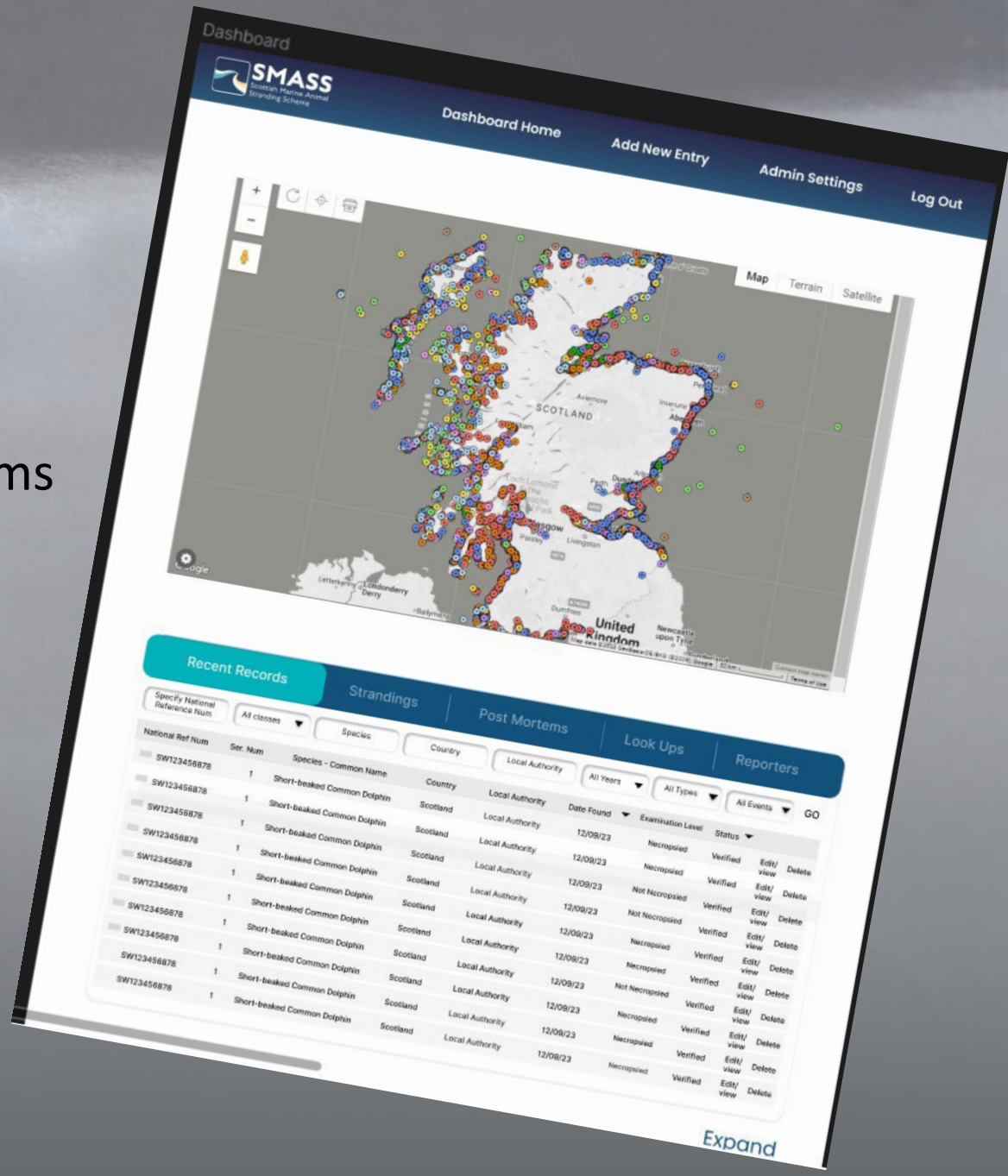
- Generates additional data + samples
  - Nutritional condition & blubber thickness
  - Morphometric data (weight, length, girth)
  - Gross pathology on all organ systems
- Samples
  - Cause of death (histo & bact)
  - Life history (age&maturity, stomach contents)
  - Specific research projects
  - Routine suite of tissues for later processing/studies





SMASS Database

- PostgreSQL
  - Object – relational database
  - Opensource
  - Easy connections with other software platforms
    - R, Python, QGIS, etc
  - Easy data dashboarding capabilities
  - Collection of tables
  - Unique identifier (Primary KEY) links data
  - Easy import/export
  - Add tables/expand database
  - Add “flags” for sensitive data



SMASS Database

Month	Year	Location	Local Authority	Region	Grid ref	Latitude WGS84	Longitude WGS84	Sex	Length	Length Uncertain	Euthanased	Stranding Type	Cause Found	Examination Level	Frozen prior to necropsy	Age Group	Comments
1	1925	East Side Of South Ronaldsa	Orkney	Orkney	ND 4769191741	58.81009674	-2.907196999	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	1920'S
1	1928	Inlet Nr Mazebank, Tafts Yae	Shetland	Shetland	HU 43833 75498	60.46100235	-1.204799294	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Late 1920'S / May Be The
10	1928	Arhare In Loch Seaforth, Lew	Western Isles	Western Isles	NB 21436 06634	57.96160126	-6.711601734	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Washed Ashore.: Carapace
7	1943	Sth Uist	Western Isles	Western Isles	NF 75400 38900	57.32477188	-7.395353794	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Seen In Marram Grass By
12	1945	Cullister Beach, W Side Of U	Shetland	Shetland	HP 56334 15518	60.81870651	-0.966113389	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
12	1949	Troon	South Ayrsh	Strathclyde	NS 31748 29880	55.53259985	-4.667590141	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Washed Ashore During
12	1951	Girvan	NA	Strathclyde	NX 17936 98020	55.24280167	-4.865290301	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
9	1952	Nr Stuer, Lochinver By Lairg	Highland	Highland	NC 02000 28000	58.1967589	-5.35270492	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
2	1954	Island Of Kerrera (Platte Isl	NA	Strathclyde	NM 79766 28675	56.39889526	-5.570506096	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Early Feb
1	1956	Beach At Meal, Burra Isle	Shetland	Shetland	HU 36978 31337	60.065520462	-1.337487734	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Thought To Be A Green
1	1957	Maniefieth Sands	NA	Tayside	NO 50971 31688	56.47480342	-2.797508001	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Probably The Same
4	1957	Beach 2Mn Of Arbroath	NA	Tayside	NO 67385 43071	56.57849884	-2.532500029	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Headless And Limbless
8	1959	Share Of The Saluay Farth, N	Dumfries an	Dumfries and Galla	NY 22560 64811	54.97189712	-3.211297989	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Dead On The Share, About
12	1961	Dunmuro	NA	Strathclyde	NS 25684 16714	55.41329575	-4.755300045	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
8	1962	Balerhare Island, Off North U	Western Isles	Western Isles	NF 77925 60921	57.52349854	-7.382507324	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Washed Ashore Dead,
10	1968	Loch Beag, Craignish Penins	NA	Strathclyde	NM 76865 01213	56.15129471	-5.594211578	U	NA	TRUE	FALSE	livestranded	Unknown	not exa	NA	unknown	Small - About 4 Ft Head To
4	1973	Leith Harbour - Onboard A Ve	NA	Lothian	NT 27500 77100	55.98142624	-3.163488865	U	NA	TRUE	FALSE	livestranded	Unknown	not exa	NA	unknown	Found On The Cat-Walk Of
9	1978	Nu Jura	Argyll And B	Strathclyde	NR 61597 95467	56.09239578	-5.834296227	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Stranded Dead, Still
1	1980	On Share Of Loch Of Stenned	Orkney	Orkney	HY 27997 11671	58.98619843	-3.254500151	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Dead Several Days.: Sent
1	1983	Washed Arhare On Renish Pe	Western Isles	Western Isles	NG 04478 81749	57.72799683	-6.966299057	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Remains Washed Arhare /
1	1983	Drimsdale	Western Isles	Western Isles	NF 74000 37000	57.30678558	-7.415989399	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Shelled Turtle Found.:
10	1983	Loch Craignish	NA	Strathclyde	NM 79731 02336	56.16270447	-5.54909277	U	NA	TRUE	FALSE	livestranded	Unknown	not exa	NA	unknown	Stranded Alive, War
1	1984	Washed Arhare On Rhenish P	Western Isles	Western Isles	NG 04900 82700	57.73678207	-6.960407257	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	1983/84 - Marna
3	1984	Grantan Beach, Edinburgh	NA	Lothian	NT 24233 77309	55.98279953	-3.215889454	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
6	1985	South Glendale, South Uist	Western Isles	Western Isles	NF 79000 14000	57.104599	-7.30368948	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Found Decomparing.
6	1985	Helm Of Scaeknerr, Orkney	Orkney	Orkney	HY 45727 31072	59.16335297	-2.949271202	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	pup	Freshspiral cut
6	1985	Helm Of Scaeknerr, Orkney	Orkney	Orkney	HY 45727 31072	59.16335297	-2.949271202	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	adult	Freshspiral cut
8	1988	Scarp Beach, Harris	Western Isles	Western Isles	NA 95089 15248	58.02140427	-7.156203022	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	Stranded Dead. Later
1	1989	Kirkwall: Mainland	Orkney	Orkney	HY 45000 11400	58.98628998	-2.958654404	U	NA	TRUE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
1	1989	Mavir Grind: Mainland	Shetland	Shetland	HU 34110 63550	60.39955521	-1.382761717	F	518	FALSE	FALSE	deadstranded	slight decomparition (	not exa	NA	unknown	
1	1989	Scraburgh Beach	Shetland	Shetland	HU 37500 18100	59.94629669	-1.3305219 41	M	396	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
1	1989	Auchencar: West Coast Of Ir	North Ayrsh	Strathclyde	NR 88800 36000	55.57180405	-5.351629734	F	152	FALSE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
1	1989	Rerwick Beach	Shetland	Shetland	HU 37400 18900	59.95349121	-1.332169175	U	305	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
2	1989	Craigaraget Beach: Luce Ba	Dumfries An	Dumfries and Galla	NX 25500 51200	54.82518387	-4.717941284	F	165	FALSE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
2	1989	Stevenrtan	North Ayrsh	Strathclyde	NS 2849039290	55.61692429	-4.72499752	F	663	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
2	1989	Ettrick Bay: Isle Of Bute	Argyll And B	Strathclyde	NS 03900 66000	55.84726715	-5.134021282	F	152	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
2	1989	Mealista: Isle Of Lewis	Western Isles	Western Isles	NA 99000 24300	58.10505295	-7.111842155	F	244	FALSE	FALSE	deadstranded	Unknown	not exa	NA	adult	
2	1989	Lee: Muckle Roe	Shetland	Shetland	HU 34400 65000	60.36766434	-1.378113031	F	439	FALSE	FALSE	deadstranded	slight decomparition (	not exa	NA	unknown	
2	1989	Braewick: Erhaness	Shetland	Shetland	HU 24600 78700	60.49137115	-1.554081678	U	122	FALSE	FALSE	deadstranded	Unknown	not exa	NA	neonate	
2	1989	Culswick: Mainland	Shetland	Shetland	HU 27300 44300	60.18234634	-1.509614825	U	2000	TRUE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
3	1989	Head Of Burravoe: Yell	Shetland	Shetland	HU 52900 79700	60.49763489	-1.033867831	F	152	FALSE	FALSE	deadstranded	slight decomparition (	not exa	NA	unknown	
3	1989	Weisdale: Mainland	Shetland	Shetland	HU 39200 51000	60.24153137	-1.293803096	F	137	FALSE	FALSE	deadstranded	slight decomparition (	not exa	NA	unknown	
4	1989	Isle Of Pabay (Broadford Bay	Highland	Highland	NG 67000 27000	57.27413177	-5.866790295	U	NA	TRUE	FALSE	deadstranded	slight decomparition (	not exa	NA	unknown	
4	1989	Pool Of Virkie: South Mainla	Shetland	Shetland	HU 39600 11500	59.88634845	-1.294203043	U	305	TRUE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
4	1989	John'S Geo: Burravoe: Sout	Shetland	Shetland	HU 53000 79000	60.49134064	-1.037223435	U	157	FALSE	FALSE	deadstranded	Unknown	not exa	NA	unknown	
5	1989	Sanaigmore: Isle Of Islay	Argyll And B	Strathclyde	NR 23800 70800	55.85109711	-6.41476059	U	500	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
5	1989	Oramar Sgeirnig: Isle Of Eig	Highland	Highland	NM 47120 89960	56.9217121	-6.158218384	U	914	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
6	1989	Oxna Island (Nr Scallaway)	Shetland	Shetland	HU 35300 36800	60.11439133	-1.366701602	M	610	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	
6	1989	Isle Of Call	Argyll And B	Strathclyde	NM 13833 54359	56.59359741	-6.663627625	U	NA	TRUE	FALSE	livestranded	freshly dead- died an k	not exa	NA	unknown	
6	1989	The Nezz: North Mainland	Shetland	Shetland	HU 39900 92400	60.61386108	-1.4190435 41	M	1219	FALSE	FALSE	deadstranded	advanced decomparit	not exa	NA	unknown	

SMASS Master Overview | Gross PM Data | Age & Maturity | Bacteriology | Histology | Virology ...

European Database

- Ecologically relevant scale
- Timely identification of UME's
  - Threats and pressures
- Support harmonisation of data collection
- Promote collaboration

PLOS ONE

RESEARCH ARTICLE

Beached bachelors: An extensive study on the largest recorded sperm whale *Physeter macrocephalus* mortality event in the North Sea

Lonneke L. IJsseldijk[1]*, Abbo van Neer[2], Rob Deaville[3], Lineke Begeman[4], Marco van de Bildt[4], Judith M. A. van den Brand[1,4], Andrew Brownlow[5], Richard Czeck[6], Willy Dabin[7], Mariel ten Doeschate[5], Vanessa Herder[8], Helena Herr[2¤], Jooske IJzer[1], Thierry Jauniaux[9], Lasse Fast Jensen[10], Paul D. Jepson[3], Wendy Karen Jo[11], Jan Lakemeyer[2], Kristina Lehnert[2], Mardik F. Leopold[12], Albert Osterhaus[11], Matthew W. Perkins[3], Uwe Piatkowski[13], Ellen Prenger-Berninghoff[14], Ralf Pund[15], Peter Wohlsein[8], Andrea Gröne[1], Ursula Siebert[2]*

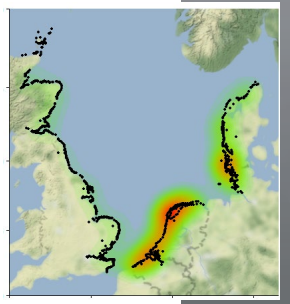
Contents lists available at ScienceDirect

Biological Conservation

journal homepage: www.elsevier.com/locate/biocon

Spatiotemporal mortality and demographic trends in a small cetacean: Strandings to inform conservation management

Lonneke L. IJsseldijk[a,*,1], Mariel T.I. ten Doeschate[a,b,1], Andrew Brownlow[b], Nicholas J. Davison[b], Rob Deaville[c], Anders Galatius[d], Anita Gilles[e], Jan Haelters[f], Paul D. Jepson[c], Guido O. Keijl[g], Carl Chr. Kinze[h], Morten Tange Olsen[i], Ursula Siebert[e], Charlotte Bie Thøstesen[j], Jan van den Broek[k], Andrea Gröne[a], Hans Heesterbeek[k]



SCIENTIFIC REPORTS

PCB pollution continues to impact populations of orcas and other dolphins in European waters

Paul D. Jepson[1], Rob Deaville[1], Jonathan L. Barber[2], Àlex Aguilar[3], Asunción Borrell[3], Sinéad Murphy[1], Jon Barry[2], Andrew Brownlow[4], James Barnett[5], Simon Berrow[6], Andrew A. Cunningham[1], Nicholas J. Davison[4], Mariel ten Doeschate[4], Ruth Esteban[7], Marisa Ferreira[8], Andrew D. Foote[9], Tilen Genov[10,11,12], Joan Giménez[13], Jan Loveridge[14], Ángela Llavona[15], Vidal Martin[16], David L. Maxwell[2], Alexandra Papachlimitzou[2], Rod Penrose[17], Matthew W. Perkins[1], Brian Smith[18], Renaud de Stephanis[13], Nick Tregenza[14], Philippe Verborgh[7], Antonio Fernandez[19] & Robin J. Law[1,2]

Thank you.

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