Supplementary Table S1. List of impact indicators for conservation research. Domains correspond to the five stages of the logic model presented in Fig. 1; subdomains are arbitrary categories collating common threads of impact. Coloured bars represent the responses of 45 questionnaire participants to the question "how important do you think this impact indicator is for conservation?: red = Irrelevant; pink = Not Important; light blue = Important; dark blue = Very Important. Asterisks indicate new indicators suggested by questionnaire respondents. Symbols indicate whether quantitative (#), or qualitative (◎) methods may be most appropriate.

	Impact Indicator	Method	Evidence
Domain 1. Research Inputs			
Subdomain 1.1. Research Direction and Resources (RDR)			
RDR 1	Research needs, gaps, unanswered questions, new areas for research identified	◎	Description of opportunities identified
RDR 2	Increase in reciprocal understanding between stakeholders and end-users around the need for, and framing of research	◎	Increased understanding and identified needs for research
RDR 3*	Agreement for working together established or re-iterated between scientists, decision-makers, practitioners, Indigenous partners	◎	Example of agreement
RDR 4*	Active participation of stakeholders and end-users in research	# ◎	Types of participation and numbers of participants
RDR 5	New understanding of values and priorities captured (e.g. organizational agencies, citizen science, Indigenous priorities)	◎	Description of new understanding
RDR 6	Research methods or techniques maintained, developed or extended	◎	Description of methods and level of use
RDR 7	Methods or resources for collecting, storing, analysing data maintained or developed	◎	Description of methods and level of use
RDR 8*	Existing datasets that were previously unavailable are liberated (e.g. industry or commercial in-confidence)	# ◎	Description and volumes of data
RDR 9	Qualified research or technical personnel recruited and including a variety of contextual and culturally relevant credentials	#	Number of people recruited
RDR 10	Skills and qualifications of existing and new research team improved or already excellent	# ◎	Team member counts, skills and qualifications
RDR 11	Research equipment and facilities improved or already excellent	# ◎	Description and value of new facilities, plans for use
RDR 12	Ability to attract research income or make in-kind contributions to future research increased or already excellent	# ◎	Description and value of ability to attract funding or make future in-kind contributions
RDR 13*	Contextually and culturally sensitive evaluation frameworks (including impact indicators) reviewed or developed for the research	◎	Evaluation frameworks and impact indicators
Domain 2. Research Processes			
Subdomain 2.1. Research Methods (RM)			
RM 14	Tools, procedures and methods to co-design research are improved or already excellent	◎	Description of methods and level of use
RM 15	New or improved methods for conducting studies spanning multiple disciplines and knowledge systems developed and or implemented	◎	Description of methods and level of use
RM 16	Best methods for data collection, management and analysis developed or maintained across disciplines and knowledge systems	◎	Description of methods and level of use
Subdomain 2.2. Research Management & Conduct (RMC)			
RMC 17	Effective research networks and collaborations, opportunities for joint research	# ◎	Number of collaborations, type and geographic of partner, type of partnership
RMC 18	Trust built or maintained within research networks and collaborations	◎	Relationship, type and geographic of partner, type of partnership
RMC 19*	Data storage, management, ownership, access, curation processes outlined, understood and agreed to by all parties	# ◎	Data sharing agreement
RMC 20*	Obtaining Prior Informed Consent from Indigenous communities understood, developed, prioritised, excellent	◎	Demonstrated process of obtaining Prior Informed Consent
RMC 21	Contextually and culturally appropriate ways of enabling all participants to co-develop research and build partnerships are conducted	◎	Examples of contextually and culturally appropriate research partnerships
RMC 22	All participants and stakeholders contribute to designing or providing input to research questions	# ◎	Description of research design process, numbers of stakeholders and organisations
RMC 23	Retention, continuity and evolution of research teams and partnerships achieved	#	Number of research staff retained
RMC 24	Contextually and culturally appropriate forms of communication among all research team developed, improved or already excellent	◎	Description of communication processes
RMC 25	Quality or quantity of teamwork across scientific disciplines and knowledge systems improved or already excellent	◎	Description of disciplines knowledge systems incorporated
RMC 26	Research team members abilities and opportunities to participate in other forums, contexts and roles, including organisational boards, societies, and across research, policy and practice, developed or improved	# ◎	Organisations, societies, boards and number
RMC 27	Barriers and problems with developing effective research processes or collaborations recognised and strategies for overcoming them maintained or developed	◎	Explanation of barriers and strategies for overcoming them
RMC28	Processes to gain research permission (permits, ethics etc.) maintained, improved, made more meaningful and rigorous in relation to research content and processes, or streamlined where appropriate	◎	Process description

Domain 3. Research Outputs

Subdomain 3.1. Academic Outputs (AO)

Code	Description	Indicator	Measure
AO 29	New techniques and methods developed for generating and capturing knowledge	◉	Description of new techniques and methods
AO 30	Legitimate, valuable, and rigorous knowledge developed according to the various knowledge systems involved in the research	◉	Details of knowledge and applicable knowledge systems
AO 31	Postgraduate students completed, training and certificates completed by research participants, capacity of young researchers increased	#	List of students
AO 32	Data sets (including spatial) made available to other researchers, practitioners and citizens/communities	# ◉	Quantitative description of data, volume of use and description of parties using data
AO 33	Number of publications relating to the research authored or co-authored by researcher or team, and (if appropriate) their impact factors	#	Number of publications and impact factors
AO 34	Presentations at regional, national and international workshops, conferences and gatherings	# ◉	Number of presentations and attendees. Discussions/ collaborations stemming from presentation
AO 35	Additions made to scientific collections	#	Number of specimens
AO 36	Increased number of grant submissions by research team	#	Number and dollar value of grant submissions/grants awarded
AO 37	Researchers recognised for achievements and/or leadership in the field	# ◉	Type and counts of recognition
AO 38	Study, project or research team recognised by award(s)	# ◉	Description or awards received
AO 39*	Collaborative research publications or outputs	# ◉	Number and description of publications co-authored with stakeholders / practitioner partners
AO 40*	Increased contributions to teaching by research participants	◉	Outline of teaching contributions
AO 41*	Clear communication of failures, limitations, and challenges in the research	◉	Details of failures and research challenges

Subdomain 3.2. Tool Development (TD)

Code	Description	Indicator	Measure
TD 42	Tools and methods made available to other researchers and research groups	# ◉	Description of tool and measure of uptake and use
TD 43	Tools made available to land managers, practitioners and citizens/communities for on-ground action (management plans, planning frameworks and processes)	# ◉	Description of tool and measure of uptake and use
TD 44	Training packages developed for practitioners, citizens, community members and stakeholder groups	# ◉	Training attendees, package downloads/use

Subdomain 3.3. Research Dissemination (RD)

Code	Description	Indicator	Measure
RD 45	Media and social media coverage for scientific publications authored or co-authored by researcher or team in the applicable time period	#	Altmetric scores
RD 46	Research publications freely and openly accessible to all including research participants and partners	#	Proportion or number of outputs available open access
RD 47	Media and social media coverage for tools and other outputs (beyond research publications) by researcher or team in the applicable time period	#	Popular press mentions, Twitter retweets, Facebook/Instagram likes
RD 48	Websites, web pages, blogs produced	#	Web views, PDF downloads, blog readers
RD 49	Popular articles including magazine and newsletter articles written by researchers and journalists	#	Authorship and no. of magazine or newsletter articles and distribution
RD 50	Generic reports or stories prepared on research and results (e.g. fact sheets, videos, animations)	# ◉	Number and reach of fact sheets or reports, public response
RD 51	Tailored reports, stories or summaries prepared on research and findings for specific audiences (e.g. land managers, Indigenous communities)	# ◉	Number of reports, reach (distribution, download numbers) and feedback
RD 52	Guidelines, guides, checklists, standards (for dispersed but like-minded audiences (e.g. parties who do environmental monitoring, all parties who participate in species translocations)	# ◉	Number of reports, reach (distribution, download numbers) and feedback
RD 53	Summaries for policy makers prepared (policy options papers, submissions to policy forums, etc)	# ◉	No. of policy materials, no. of submissions, no. of downloads, and responses
RD 54	Contribution to public policy advisory committee(s)	◉	Description of committee and advice or influence
RD 55	Presentations to schools, community groups and forums	#	Event audience numbers

Domain 4. Research Outcomes

Subdomain 4.1. Research Uptake (RU)

	Indicator	# / ◎	Evidence
RU 56	Academic citations for scientific publications authored or co-authored by researcher or team in the applicable time period	#	Number of academic citations, number of countries/institutions/languages represented,
RU 57	Public and grey-literature citations for scientific publications authored or co-authored by researcher or team in the applicable time period	# ◎	Number of citations in government, management, think tank or NGO documents, mentions in legal arguments, use as case study evidence
RU 58	Research findings perpetuated via popular articles, newsletters, fact sheets, reports written by third parties	#	Number of articles and distribution

Subdomain 4.2. Increased Awareness & Responses (AR)

	Indicator	# / ◎	Evidence
AR 59	Species or ecological community listed as threatened and / or protected by legislative instrument	◎	Description of species/ecological community and instrument
AR 60	Landscape or threatened ecological community heritage listed	◎	Description of species/ ecological community and listing instrument
AR 61*	Results trigger inscription of national park or conservation land tenure	# ◎	Description of land, size and conservation values protected.
AR 62	Adoption of more effective techniques for conservation practice (e.g. captive breeding, reintroduction in the wild)	◎	Description of technique adopted
AR 63*	Increased support or legitimacy for community/citizen practices that help to achieve conservation goals	◎	Details of support and evidence of increased legitimacy

Subdomain 4.3. Community & Stakeholder Engagement (CSE)

	Indicator	# / ◎	Evidence
CSE 64	Mutually established and agreed upon ideas research and goals between researchers and community organisations, Indigenous communities, conservation groups, land managers	◎	Explanation of understanding, stakeholder type and geographic location
CSE 65	Links formed/improved between members of the research team, community organisations, Indigenous communities, conservation groups, land managers, for on ground action	# ◎	Description of organisation or stakeholder and action, stakeholder mapping, numbers and breadth (e.g. sectors) engaged in research
CSE 66	Improved or increased intercultural capacities, via collective training of researchers on-ground personnel, in community organisations, Indigenous communities, conservation groups, land managers	# ◎	Explanation of increased capacity and number of individuals
CSE 67	Participation by government, community organisations, Indigenous communities, NGOs, land managers to co-design further research questions and methods	# ◎	Description of participation and number of individuals
CSE 68	Emails, phone calls, social media messages enquiring about research outputs	#	List of unsolicited contact events
CSE 69*	Testimonies and reflections from relevant engaged and affected stakeholders about the conduct, value and significance of the research	◎	Testimonials received
CSE 70	Involved, engaged or affected stakeholders inspired/supported to engage further in independent research (e.g. citizen science programs, Indigenous knowledge projects)	# ◎	Numbers of participants, volume and rigour of data, whether the program is ongoing

Subdomain 4.4. On-ground Action (OGA)

	Indicator	# / ◎	Evidence
OGA 71	Findings from research incorporated into real world experimental tests or trials	# ◎	Description of tests, data on test , participants, species incorporated
OGA 72	Research findings, tools and guidelines adopted in practice and implemented in monitoring, management, community practices, regulation, business practices	# ◎	Description of findings. Tools, guidelines and volume of use
OGA 73	Establishment of adaptive management trials, close coupled science-practice feedback loops	◎	Description of adaptive management trials
OGA 74	New skills and training developed through research implemented	# ◎	Skills and training and number of people using
OGA 75	Increase in protected area size and/or quality	# ◎	Quantity and quality of the protected area
OGA 76	Reduction in threatening process(es)	# ◎	Quantity and quality of the reduction in threat

Subdomain 4.5. Public & Private Policy Development (PPP)

	Indicator	# / ◎	Evidence
PPP 77	Influence on public policy debate	◎	Description of use in public debate
PPP 78	Research findings help to inform the decision-making process and result in change to public policy, strategy and/or program design	◎	Description and evidence for policy, strategy, program design change
PPP 79	Legislation implemented or changed	◎	Description of legislation
PPP 80	Regulations and/or Natural Resource Management Monitoring, Evaluation, Reporting and Improvement Framework (MERI Framework) improved	# ◎	Description and volume of use of regulations or MERI Framework
PPP 81	Research processes and findings result in beneficial change to for-profit, business and private sector policy (e.g. private companies, financial sector consortium)	◎	Description of policy
PPP 82	Research findings result in beneficial change to non-governmental and not-for-profit policy (e.g. International Union for the Conservation of Nature, Indigenous corporations)	◎	Description of policy
PPP 83*	Research processes and findings contribute to and result in beneficial change in community deliberation and decision making	◎	Evidence of research use in community decision making

Domain 5. Research Environmental Impacts

Code	Description	Indicators
REI 84	Improvement in condition of the environment	Natural resource area, quantity and quality measures and description
REI 85*	Species and country healthy as measured by Indigenous-led definitions	Culturally relevant indicators (e.g. indicators in healthy country plans)
REI 86	Increase in threatened species habitat/threatened ecological community area or quality	Habitat description, aerial extent and quality measures
REI 87	Population increase or avoided declines in a threatened species or ecological community	Population measures
REI 88	Improvement in the threatened status of a species or threatened ecological community	Population status and classification change
REI 89	Improvement in the condition of an ecosystem, wetland, marine environment	Aerial extent, quality measures, qualitative description
REI 90	Avoided loss of biodiversity	Narratives and measures of biodiversity
REI 91*	Improvement or maintenance of the functioning of an ecosystem, wetland, marine environment.	Narratives about increased abilities to pursue locally defined objectives
REI 92*	Improvement in the abilities of parties involved in or affected by conservation research to pursue locally defined priorities, objectives and goals (e.g. Indigenous communities, community conservation groups, natural reseource management authorities)	Description of rejuvenated relationships between people and environment
REI 93*	Improvement in support for performance, experience, and/or rejuvenation of contextually and culturally appropriate relationships between people and species and ecological communities	Evidence of more informed society
REI 94*	A better informed society with greater social licence for conservation	Evidence of increased human wellbeing
REI 95*	Improvement in human wellbeing derived from species and/or ecosystems, including access to resources, health, livelihoods, self-determination, social relations, and cultural and spiritual satisfaction	Evidence of increased human well-being
REI 96*	Improved capacities of management, governance and institutions to engage in effective, equitable and informed deliberation and decision-making around conservation issues	Description of increased capacities