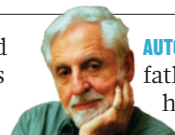


COMMENT

CONSERVATION Experts weigh in on priorities for the world's protected areas **p.28**

ECONOMICS Loss of natural and ecological capital leaves hole in national budgets **p.32**

CHEMISTRY The fame and shame of the elements that never were **p.34**



AUTOBIOGRAPHY Carl Djerassi, father of the Pill, reflects on his life and literature **p.36**



Conservation efforts risk getting snared in a tangle of aims.

A call for inclusive conservation

Heather Tallis, Jane Lubchenco and 238 co-signatories petition for an end to the infighting that is stalling progress in protecting the planet.

An age-old conflict around a seemingly simple question has resurfaced: why do we conserve nature? Contention around this issue has come and gone many times, but in the past several years we believe that it has reappeared as an increasingly acrimonious debate between, in essence, those who argue that nature should be protected for its own sake (intrinsic value)^{1,2} and those who argue that we must also save nature to help ourselves (instrumental value)³⁻⁵.

Champions of instrumental value contend, among other things, that protecting nature for its own sake alone has failed to stem the tide of species extinction, that conservation

should be open to partnering with business to effect the greatest change and that conservation support will be broadened by more directly considering other social objectives (such as food security or clean water). By contrast, advocates of intrinsic value assert that ethical arguments for conservation should be sufficient, that partnering with business is selling out to those who create the problem and that social considerations are already central to conservation.

Unfortunately, what began as a healthy debate has, in our opinion, descended into vitriolic, personal battles in universities, academic conferences, research stations,

conservation organizations and even the media⁶. We believe that this situation is stifling productive discourse, inhibiting funding and halting progress.

Adding to the problem, in our view, is the issue that this dispute has become dominated by only a few voices, nearly all of them men's. We see this as illustrative of the bigger issues of gender and cultural bias that also continue to hinder conservation.

The stakes? The future of conservation science, practice and policy. Conservation regularly encounters varied points of view and a range of values in the real world. To address and engage these views and values, we call for more-inclusive representation of scientists and practitioners in the charting of our field's future, and for a more-inclusive approach to conservation.

EMBRACE DIVERSE VALUES AND VOICES

Women historically have been under-represented in environmental-science faculty positions and in conservation practice, as in most scientific fields. This disparity is changing globally, but at different rates: more slowly in Asia and more quickly in Latin America and the Caribbean, for example⁷. In the United States, more than half the leadership positions in conservation organizations are now held by women. And on the global stage, women currently hold top positions in many leading efforts, including the Intergovernmental Platform on Biodiversity and Ecosystem Services, the Future Earth science committee, and the International Union for Conservation of Nature. This progress makes the dearth of female voices in the debate about the premise of our profession all the more stark.

The signatories in agreement here — women and men from around the globe — support an equal role for women and for practitioners of diverse ethnicities and cultures in envisaging the future of conservation science and practice.

Together, we propose a unified and diverse conservation ethic; one that recognizes and accepts all values of nature, from intrinsic to instrumental, and welcomes all philosophies justifying nature protection and restoration, from ethical to economic, and from aesthetic to utilitarian. What we propose is not new. This diverse set of ethics has a long-standing history in modern conservation⁸. For ▶

MIKE LANZETTA/GETTY

- 75 School of Development, Azim Premji University, PES Institute of Technology Campus, Pixel Park, Electronics City, Bangalore - 560100, India
- 76 The Nature Conservancy, Arlington VA, 22203, USA
- 77 Lund University Centre for Sustainability Studies, P.O. Box 170, SE-221 00, Lund, Sweden
- 78 Department of Biology, Romberg Tiburon Center for Environmental Studies, San Francisco State University, Tiburon, CA, 94920, USA
- 79 School of Integrative Biology, University of Illinois at Urbana-Champaign, University of Illinois, Urbana, IL 61801, USA
- 80 Nicholas Institute for Environmental Policy Solutions and Nicholas School of the Environment, Duke University, Durham, NC 27708, USA
- 81 Department of Natural Resources and Environmental Management, University of Hawai'i Manoa, Honolulu, HI 96822, USA
- 82 Department of Ecology and Evolution, Stony Brook University, Stony Brook, NY 11794-5245, USA
- 83 Earth to Ocean Research Group, Simon Fraser University, Burnaby, BC V5A 1S66, Canada
- 84 National Socio-Environmental Synthesis Center, Annapolis, MD 21401 USA
- 85 Department of Biology and Management of Aquatic Resources, Centro Nacional Patagónico CONICET, Av. Rivadavia 1917 (C1033AAJ) Ciudad Autónoma de Buenos Aires - República Argentina
- 86 Department of Geography, Florida State University, Tallahassee, FL 32306, USA
- 87 Department of Fish, Wildlife, and Conservation Biology, Colorado State University, Fort Collins, CO 80523, USA
- 88 School of Biological Sciences, University of Queensland, St Lucia, Brisbane 4072, Australia
- 89 Research Professor, Odum School of Ecology, The University of Georgia, Athens, GA. 30602-2602, USA
- 90 Natural Resources and the Environment, Council for Scientific and Industrial Research, Stellenbosch, 7599 South Africa
- 91 Natural Resource Ecology & Management Department, Iowa State University, 339 Science II, Ames, Iowa, 50011, USA
- 92 Hawai'i Institute of Marine Biology, University of Hawai'i, Kāne'ohe, Hawai'i 97644, USA
- 93 Department of Fisheries and Wildlife, Michigan State University, East Lansing, MI 48824, USA
- 94 University of Wisconsin, Center for Limnology, Madison, WI 53706, USA
- 95 Percy FitzPatrick Institute, DST/NRF Centre of Excellence, University of Cape Town, Rondebosch 7700, Cape Town, South Africa
- 96 Department of Ecology and Evolutionary Biology, University of Colorado, Boulder, CO 80309, USA
- 97 The Nature Conservancy, Seattle, WA 98101, USA
- 98 Florida International University, Southeast Environmental Research Center (OE 148) & Department of Biological Sciences, Miami, FL, 33199, USA
- 99 College of Science and Mathematics, University of the Virgin Islands, St. Thomas, USVI 00802, USA
- 100 Department of Zoology, University of Otago, Dunedin, New Zealand
- 101 Extension and Outreach, Federal University of Bahia, 40170-115, Salvador, Bahia, Brazil
- 102 Biology Institute, Federal University of Bahia, 40170-210 Salvador, Bahia, Brazil
- 103 Biology Department, University of Central Florida, Orlando, FL 32816, USA
- 104 The Nature Conservancy, Boulder, CO 80302, USA
- 105 The Nature Conservancy, University of North Carolina, Institute of Marine Sciences, Morehead City, NC 28557, USA
- 106 The Nature Conservancy, University of Rhode Island, Narragansett Bay Campus, Narragansett, RI, 02882-1197, USA
- 107 Catalan Institute for Water Research, 17003 Girona, Spain
- 108 Agroecology, Department of Crop Sciences, Georg-August University, Göttingen, Germany
- 109 Department of Environmental Sciences, Emory University, Atlanta, GA, 30322, USA
- 110 Resources for the Future, Center for Management of Ecological Wealth, Washington, DC 20036, USA
- 111 Department of Anthropology, Indiana University, Bloomington, IN, 47405, USA
- 112 Center for Limnology, University of Wisconsin-Madison, Madison, WI, 53706, USA
- 113 Institute of Arctic Biology, University of Alaska Fairbanks, Fairbanks, AK, USA
- 114 Biology Program, Universidad del Rosario, Bogotá D.C., Colombia
- 115 School of Forestry and Environmental Studies, Yale University, New Haven, Connecticut 06511, U.S.A.
- 116 CSIRO Land and Water Flagship, Glen Osmond, South Australia, 5064, Australia
- 117 Bren School of Environmental Science and Management, University of California, Santa Barbara, CA, 93106, USA
- 118 Bioersivity International, Montpellier Cedex 5, France
- 119 Social-Ecological Systems Laboratory, Department of Ecology, Universidad Autónoma de Madrid, 28049, Madrid, Spain
- 120 Wageningen University, Environmental Systems Analysis Group, Wageningen, Netherlands
- 121 International Human Dimensions Program-United Nations University, Bonn, Germany
- 122 University of Washington, School of Aquatic and Fishery Sciences, Seattle, Washington, 98195-5020, USA
- 123 The Nature Conservancy, Minneapolis, MN 55415
- 124 Department of Economics, Andrew Young School of Policy Studies, Georgia State University, Atlanta, USA
- 125 World Wildlife Fund (WWF), Washington, DC 20037, USA
- 126 The Nature Conservancy, West End, QLD 4101, Australia
- 127 Department of Civil, Environmental and Mechanical Engineering, University of Trento, Trento 38123, Italy
- 128 International Center for Tropical Agriculture, Nairobi, Kenya
- 129 The Nature Conservancy, Ft. Collins, CO, 80524, USA
- 130 The Nature Conservancy, Bozeman, MT, USA
- 131 Department of Zoology and Biodiversity Research Centre, University of British Columbia, Vancouver, British Columbia, V6T1Z4, Canada
- 132 Energy and Resources Group, University of California, Berkeley, California 94720 USA
- 133 The Nature Conservancy, Chicago, IL 60603, USA

- 134 Ecosystem Restoration and Intervention Ecology Research Group, School of Plant Biology, University of Western Australia, Perth, Western Australia, Australia
- 135 Center for Biodiversity Strategies, Faculty of Science and Mathematics, Universitas Indonesia, Depok Campus, Depok 16424, Indonesia
- 136 The Nature Conservancy, Berkeley, CA, 94705, USA
- 137 School of Environmental and Forest Sciences, University of Washington, Seattle, WA, 98195, USA
- 138 Conservation Biology Division, Northwest Fisheries Science Center, National Marine Fisheries Service, Seattle, USA
- 139 Biology Department, Franklin and Marshall College, Lancaster, PA, 17603, USA
- 140 The Nature Conservancy, Boston, MA, 02111, USA
- 141 People and Nature Consulting International - Borneo Futures project, Jakarta 15412, Indonesia
- 142 Department of Economics, Bowdoin College, Brunswick, ME, 04011-8497, USA
- 143 The Nature Conservancy, Chagrin Falls, OH, 44022, USA
- 144 Cary Institute of Ecosystem Studies, Millbrook, NY 12545-0129, USA
- 145 Centro Nacional Patagónico-CONICET, Puerto Madryn, Chubut, Argentina
- 146 Duke University, Durham, NC, USA
- 147 The David and Lucile Packard Foundation, Los Altos, CA
- 148 The Nature Conservancy, 5834 St George Avenue, Crozet, Virginia 22932, USA
- 149 Gund Institute for Ecological Economics, University of Vermont, Burlington, VT 05405, USA
- 150 Environment Department, University of York, Heslington, York YO10 5DD, UK
- 151 School of Life Sciences, University of Sussex, Brighton, United Kingdom
- 152 Aquatic Ecology and Water Quality Management, Wageningen University, Wageningen, The Netherlands
- 153 Division of Marine Science, Nicholas School of the Environment, Duke University, Beaufort, NC 28516
- 154 Landscape Conservation Initiative; Northern Arizona University; Flagstaff, Arizona 86011 USA
- 155 CGIAR, Montpellier Cedex 5, France
- 156 Fisheries Economics Research Unit, Fisheries Centre, University of British Columbia, Vancouver, BC, Canada
- 157 Charles University in Prague, Environment Center, 162 00 Prague, Czech Republic
- 158 Global Change Research Centre, Academy of Sciences of the Czech Republic, 603 00 Brno, Czech Republic

▶ example, more than 100 years ago, both intrinsic and instrumental values were used in the creation of Yellowstone National Park in Wyoming, and when Californians spurred the broader environmental movement in the United States by using economic studies of the value of birds alongside compelling speeches about the purity and grandeur of nature⁹.

These values need not be in opposition, although they do reflect the hard choices that conservation often faces. They can instead be matched to contexts in which each one best aligns with the values of the many audiences that we need to engage. Those on the side of intrinsic value will argue that by recognizing the many ways in which people benefit from nature, we cheapen nature and miss opportunities to save components of it that have little or no obvious value to people. This is a valid concern, and one of many reasons why we must continue to uphold intrinsic values to audiences who share those values, or may be inspired towards them. However, instrumental values will remain more powerful for other audiences, and should be used in the many contexts where broadening support for conservation is essential⁴.

Clearly, all values will not be equally served in every context. Approaching conservation problems with representative perspectives and a broad base of respect, trust, pragmatism and shared understanding will more quickly and effectively advance our shared vision of a thriving planet. Prominent institutions already embrace multiple voices and values. For example, the field's signature international

treaty, the Convention on Biological Diversity, calls for the conservation of biodiversity, and for the sustainable use and equitable sharing of its benefits. Some countries leading in this area, such as Mexico, Costa Rica and Colombia, have followed suit, capturing these joint interests in their own governing language.

PRACTICAL ACTION

What now? Academic training of conservation scientists should more accurately portray the rich, global history of the field, introducing students to the diverse ways in which nature has been valued and conserved for centuries. More forums at conferences, in journals and on social media are needed to elevate the voices of scientists and practitioners from under-represented genders, cultures and contexts. Conservation organizations and scientists can embrace all plausible conservation actors, from corporations to governmental agencies, faith-based organizations and interested individuals, and advance conservation efforts when they can benefit people and when there is no obvious human-centric goal.

These efforts must be underpinned by a stronger focus on synthesizing and expanding the evidence base that can identify what works and what fails in conservation so that we can move from philosophical debates to rigorous assessments of the effectiveness of actions. And we must encourage the full breadth of conservation scientists and practitioners to engage with the media so that coverage reflects the true range of opinion

(for example, the 240 co-signatories listed are ready for interview) rather than the polarized voices of a few. To add your name to this petition, visit diverseconservation.org.

It is time to re-focus the field of conservation on advancing and sharing knowledge in all relevant disciplines and contexts, and testing hypotheses based on observations, experiments and models¹⁰. We call for an end to the fighting. We call for a conservation ethic that is diverse in its acceptance of genders, cultures, ages and values. ■

Heather Tallis is lead scientist at the Nature Conservancy in Santa Cruz, California, USA. **Jane Lubchenco** is professor of marine biology and of zoology at Oregon State University in Corvallis, Oregon, USA. e-mail: htallis@tnc.org

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For a full list of co-signatories and further reading on this topic, see go.nature.com/teztv.

A to-do list for the world's parks

Experts share their priorities for what must be done to make protected areas more effective at conserving global biodiversity.

BOB PRESSEY

Maximize returns on conservation

Professor, Australian Research Council Centre of Excellence for Coral Reef Studies, James Cook University

Protected areas are meant to preserve biodiversity, but practice, measures of progress and targets do not reflect this role.

Governments and non-governmental organizations usually concentrate on politically palatable measures, such as numbers of hectares. Measures of progress and targets for protected areas should focus on placing protection where it can make the most difference.

A 2008 study estimated that only 7% of protected forests in Costa Rica would have been lost if not protected (K. S. Andam *et al. Proc. Natl Acad. Sci. USA* **105**, 16089–16094; 2008). These forests, like most protected areas worldwide, are in 'residual areas' — those where direct human threats to biodiversity are low, and where 'protection' makes

little difference. Misleadingly, target 11 of the Convention on Biological Diversity measures progress in percentages of land and sea protected. Meanwhile, the biodiversity of contested places continues to be eroded.

Performance metrics for protected areas should borrow from those in medicine, education and development. These fields all aim to maximize returns on investment. The language of programme evaluators is framed in terms of efficacy: what is the actual outcome of an intervention, compared with the outcome expected from no intervention?

For protected areas, efficacy means