



Natural
History
Museum

Title	A proposal for ethical research conduct in Madagascar
Item Type	Journal Article
Authors	Wilmé, L;Waeber, PO;Moutou, F;Gardner, CJ;Razafindratsima, O;Sparks, J;Kull, CA;Ferguson, B;Lourenço, WR;Jenkins, PD;Ramamonjisoa, L;Burney, DA;Lowry, PP
DOI	10.4314/mcd.v11i1.8
Journal	Madagascar Conservation & Development
Rights	openAccess
Download date	2026-05-12 07:13:05
Link to Item	http://hdl.handle.net/10141/622365

SHORT NOTE

<http://dx.doi.org/10.4314/mcd.v11i1.8>

A proposal for ethical research conduct in Madagascar

Lucienne Wilmé^I, Patrick O. Waeber^{II}, François Moutou^{III}, Charlie J. Gardner^{IV}, Onja Razafindratsima^V, John Sparks^{VI}, Christian A. Kull^{VII}, Barry Ferguson^{VIII}, Wilson R. Lourenço^{IX}, Paulina D. Jenkins^X, Lolona Ramamonjisoa^{XI}, David A. Burney^{XII}, Porter P. Lowry II^{XIII}

Correspondence:

Lucienne Wilmé

Email: lucienne.wilme@mobot-mg.org

ABSTRACT

Ethical conducts are gaining importance in times of increased globalization and research efforts. This paper presents a code of ethical conduct for researchers who plan to publish their studies with the journal *Madagascar Conservation & Development*. This paper will be subject to continuous adaptations and discussions.

RÉSUMÉ

Les conduites éthiques gagnent en importance en ces temps marqués par une mondialisation croissante et une augmentation du volume des travaux de recherche. Cette contribution présente un code de conduite éthique destiné aux chercheurs qui envisagent de publier leurs études dans le journal *Madagascar Conservation & Development*. Cet article fera l'objet de discussions et sera régulièrement adapté.

THE NEED FOR CODES OF ETHICAL CONDUCT

The end of World War II saw the adoption of a number of codes of ethical conduct in various disciplines of research. For example, the Nuremberg Code of 1948 stated that “the voluntary consent of the human subject is absolutely essential” (Shuster 1997: 1436), implying that research subjects should give prior consent and especially, that benefits stemming from such research must outweigh the risks involved. Most countries have published ethical codes of conduct for research, and several research institutions have organized ethical committees to help their researchers follow and adopt common principles, framing social science approaches, ecological surveys or research with and on animals

(e.g., Britt 1984, Directive 2010/63/EU, Biller-Andorno et al. 2015, South African Council for Social Services Professions). Since the end of the 20th century, Germany, the United States and other countries have consolidated research activities under the umbrella of ‘Research Integrity’ to impose principles on national universities, as well as universities receiving grants (Mayer 2015). The 2010 Singapore statement, an outcome of three consecutive world conferences on research integrity, lists 14 responsibilities: integrity, adherence to regulations, research methods, research findings, authorship, publication acknowledgment, peer review, conflict of interest, public communication, reporting irresponsible research practices, responding to irresponsible research practices, research environments, and societal considerations (Resnik and Shamoo 2011, cf. details in Wagner and Kleinert 2011). Along the same lines an article in *The Lancet* (Anonymous 2012) with the title “Promoting research integrity: a new global effort” provides a thorough list of principles and responsibilities in research.

In the years 2002–2007, global research expenditures increased by almost 50%, while the number of researchers grew some 25% and the number of scientific publications went up almost 30% to some 1.58 million per year (Royal Society of London 2011). One of the most important metrics for excellence in science is the number and quality of publications produced. In a world where ‘publish or perish’ remains a guiding principle (Garfield 1996), researchers are facing growing challenges when it comes to producing knowledge and understanding for the dissemination and transfer to policy- and decision-makers (Gluckman 2014). Consequently, pressures on researchers to deliver results are high, and

- I Missouri Botanical Garden, Madagascar Research & Conservation Program, BP 3391, Antananarivo 101, Madagascar
 II Forest Management and Development, Department of Environmental Sciences, Swiss Federal Institute of Technology Zurich, 8092 Zurich, Switzerland
 III French Mammal Society & French Agency for Sanitary Security, France
 IV School of Anthropology and Conservation, Durrell Institute of Conservation and Ecology (DICE), University of Kent, Kent CT2 7NR, UK
 V Department of BioSciences, Rice University, 6100 Main St. MS 170, Houston, TX 77005, USA
 VI American Museum of Natural History, Department of Ichthyology, Division of Vertebrate Zoology, Central Park West at 79th Street, New York, NY 10024, USA
 VII Institut de Géographie et Durabilité, Géopolis – Mouline, Université de Lausanne, 1015 Lausanne, Switzerland
 VIII Madagascar Environmental Justice Network, Fort-Dauphin, Madagascar
 IX Muséum national d'Histoire naturelle, Sorbonne Universités, Institut de Systématique, Evolution, Biodiversité (ISYEB), UMR7205-CNRS, MNHN, UPMC, EPHE, CP 53, 57 rue Cuvier, 75005 Paris
 X The Natural History Museum, Cromwell Road, London SW7 5BD, UK
 XI Silo National des Graines Forestières, Ambatobe, Antananarivo 101, Madagascar
 XII National Tropical Botanical Garden, Kalaheo, HI 96741, USA
 XIII Missouri Botanical Garden, Africa and Madagascar Program, P.O. Box 299, St. Louis, Missouri 63166-0299, USA
- Citation Wilmé, L., Waeber, P. O., Moutou, F., Gardner, C. J., Razafindratsima, O., Sparks, J., Kull, C. A., Ferguson, B., Lourenço, W. R., Jenkins, P. D., Ramamonjisoa, L., Burney, D. A. and Lowry II, P. P. 2016. A proposal for ethical research conduct in Madagascar. *Madagascar Conservation & Development* 11, 1: 36–39. <http://dx.doi.org/10.4314/mcd.v11i1.8>



Madagascar Conservation & Development is the journal of Indian Ocean e-Ink. It is produced under the responsibility of this institution. The views expressed in contributions to MCD are solely those of the authors and not those of the journal editors or the publisher.

All the Issues and articles are freely available at <http://www.journalmcd.com>



Contact Journal MCD
info@journalmcd.net for general inquiries regarding MCD
funding@journalmcd.net to support the journal

Madagascar Conservation & Development
Institute and Museum of Anthropology
University of Zurich
Winterthurerstrasse 190
CH-8057 Zurich
Switzerland

io@i

Indian Ocean e-Ink
Promoting African Publishing and Education
www.ioeink.com

 MISSOURI BOTANICAL GARDEN

Missouri Botanical Garden (MBG)
Madagascar Research and Conservation Program
BP 3391
Antananarivo, 101, Madagascar

the temptation to cut corners is real. Hence, research must adhere to the highest possible ethical and legal standards. Too few journals have an explicit code of conduct; nevertheless, a number of internationally renowned conservation journals are already adhering to ethical principles for published research. For example, the journal *Biodiversity and Conservation* has a list of ethics in their Ethical Responsibilities of Authors and Compliance with Ethical Standards, as do the other Springer journals, *Biological Conservation* refers to its Policy and Ethics paragraph for ethical conduct for publishing, and *Oryx* has an explicit Code of Conduct that is based on the British Sociological Association (BSA 2002), and this is under current revision to adapt and address new challenges occurring at global scale. The Society of Conservation Biology has developed a code of ethics based on 15 points; more than 90 researchers provided statements and amendments for the final document (Box 1).

Box 1. Examples of journals with published codes of conduct

Biodiversity and Conservation
<https://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/before-you-start>

Biological Conservation
<https://www.elsevier.com/journals/biological-conservation/0006-3207/guide-for-authors#6001>

Oryx
<http://www.oryxthejournal.org/index.php/for-authors/instructions.html#coc>

Society of Conservation Biology
<http://conbio.org/about-scb/who-we-are/code-of-ethics>

Madagascar, for example, has an ethics committee with oversight for research to be conducted in protected areas. However, despite the fact that Madagascar's unique biodiversity and degree of endemism has attracted hundreds of international research, conservation and development institutions (Waeber et al. 2016), resulting in thousands of research publications over the past decades (e.g., Wilmé et al. 2012), no such research committee exists that includes research universities. The production of knowledge is a contribution which is not tangible in the short term, but may be beneficial in the longer term. We believe that if researchers adhere to a code of conduct that is broad in scope but allows the explicit delineation of specifics, there can be a win-win situation (e.g., between researchers and policy makers, researchers and conservationists, or researchers and farmers). Here we propose a code of conduct for researchers contributing articles to the journal *Madagascar Conservation & Development*, which is applicable to both foreign and national researchers. However we encourage all researchers operating in Madagascar to abide by the code, regardless of the journals to which they intend to submit their research outputs.

RECOMMENDATIONS FOR ETHICAL CONDUCT

Ethical guidelines are becoming more important since a steadily increasing globalization is affecting growing numbers of countries, institutions and people. This increased risks of contamination and

spreading of diseases, for human beings as with influenza epidemics (bird flu) but also for biodiversity as for example the transmission of pathogens to frogs (e.g., Phillott et al. 2010, Kolby et al. 2015) or bats (Blehert 2012).

The rationale for code(s) of conduct should be to ensure that the potential negative impacts of research are avoided or minimized, while the benefits of research should be maximized both for the researchers and for all relevant stakeholders. For example, the Swiss government proposes 11 principles for successful partnerships in research for development: (i) set the agenda together, (ii) interact with stakeholders, (iii) clarify responsibilities, (iv) account to beneficiaries, (v) promote mutual learning, (vi) enhance capacities, (vii) share data and networks, (viii) disseminate results, (ix) pool profits and merits, (x) apply results, and (xi) secure outcomes (Stoekli et al. 2014). Research institutions in the developed world, private and public, have credible integrity systems that can be followed. Some initiatives have been taken across Africa to promote responsible conduct in research and identify strategies to promote research integrity (Kombe et al. 2014). They propose two broad approaches: "(1) promotion of institutional and individual capacity building to instill a culture of responsible research conduct in existing and upcoming research scientists, and (2) developing deterrent and corrective policies to minimize research misconduct and other questionable research practices" (Kombe et al. 2014: 8–9). In the following, we present a list of recommendations that take into account the Swiss system and Kombe et al. (2014).

Recommendations are meant to assist researchers and students from Madagascar and outside in planning their publishing with the journal *Madagascar Conservation & Development*. The list should be reviewed and updated on a regular basis, as part of an interactive and iterative process. Many technical fields need their own ethical guidelines, which are hopefully consistent with the spirit at least of this document. The current list is non-exhaustive, but rather aims to provide a broad overview of guidelines to abide; we also refer to already well-established codes of conduct where appropriate.

Researchers must seek appropriate and necessary permissions from home but also local institutions and authorities. Researchers should always respect local culture, beliefs and rights; researchers must consider the interests of stakeholders in research planning and management. Research should conform to the standards set out by an internationally recognized source (example: research involving lemurs should adhere to the principles for the ethical treatment of non-human primates set out by the American Society of Primatologists, <https://www.asp.org/welfare/socialhousingpolicystatement.cfm>). Research outcomes should be shared fairly with the project counterparts.

Minimize the impact on animals, plants and ecosystems in general. Whenever possible, non-invasive methods that do not require capture and/or euthanasia/preservation of animals should be used. Always conform to the highest standards of animal welfare for animal capture and handling, which should also be performed by those with the appropriate qualifications in animal capture (cf. Guidelines of the American Society of Mammalogists, Sikes et al. 2011). Avoid the accidental introduction and dispersal of non-native terrestrial and aquatic species in the ecosystem (e.g., avoid bringing propagules or any other living forms from outside the system or from one site to another). Collection must be

justified and should only take place if it is essential for the integrity of the research, and the number of specimens must be kept to the minimum necessary to conduct the research. Always consider alternative methods to animal capture and euthanasia, such as sampling of hair and feces, photographs and/or sound recordings, including for the description of new taxa (e.g., Thalman and Geissman 2005, Ito et al. 2013). If specimens are to be kept abroad, all national and international laws should be respected (e.g.: Nagoya Protocol, CITES). Seed samples collected should conform to national regulations and be registered in Silo National des Graines Forestières - SNGF and a duplicate deposited in the national seedbank. Any experiments involving live animals (e.g., feeding experiments, applied behavioral research) should conform to established policies on ethical treatment of animals (e.g., Sherwin et al. 2003) and should only use lawfully acquired animals.

To prevent animal-animal, animal-human, and human-animal transfer of disease, high levels of personal hygiene should be maintained (e.g., avoid having a sick person observing animals in the field, or handling them; maintain a certain distance between the observer and the animal subjects to reduce incidence of disease transmission). Researchers should use established protocols to avoid transmission of pathogens to animals (e.g., Phillott et al. 2010, Blehert 2012, Kolby et al. 2015). Care should be taken to prevent any biopiracy of indigenous knowledge and biological products that might otherwise occur through removing indigenous rights for maximizing economic profits (e.g., Efferth et al. 2016, application of Nagoya Protocol).

The following recommendations on social aspects are based on the British Sociological Association's standards (BSA 2002): "Respect for human rights and a commitment to promoting social justice are at the core of social work practice throughout the world" (BASF 2012: 5). Research that involves people should hold the well-being, dignity, and rights of the participants as key principles to inform the research strategy (Hammett et al. 2015: 88). Ethical research with humans avoids abuses of power, does not harm participants, and relies on voluntary and informed participation. Ethical research with humans is not restricted to specific practices such as consent forms or anonymity; it involves the entire research project, including questions like the following (Hammett et al. 2015: 92): "Is the research well designed and respectful of participants' time and interests? Has due thought been given to whom the beneficiaries are of the research, and what their role is (if any) in designing the research? Are there any benefits for the local community from the research?" The safety and well-being of participants is paramount. This includes physical aspects (e.g., health risks) and social aspects (e.g., emotional distress) and legal aspects (e.g., compromising information). For the latter two, appropriate strategies regarding anonymity of participants as well as confidentiality of data (e.g., security of interview transcripts) should be put in place and communicated with participants (although see St. John et al. 2016).

CONCLUSION

Before inception of any research on the ground, researchers first need to seek approval of their project at their home institution. In a next step, research must have received all necessary authorisations in the country where it was carried out. The current paper is a proposition intended for researchers to publish in the journal *Madagascar Conservation & Development*; it will be sub-

ject to continuous updating to allow coping with global and international demands, challenges, and changes.

ACKNOWLEDGEMENTS

We would like to thank Joerg U. Ganzhorn (University of Hamburg) for comments on an earlier draft, as well as Martin Fisher (Editor-in-Chief of the journal *Oryx*) for his valuable review. The development of this proposal has been supported by the Swiss Programme for Research on Global Issues for Development under the research grant IZ01Z0_146852.

REFERENCES

- Anonymous 2012. Promoting research integrity: a new global effort. *The Lancet* 380: 1445. (doi:10.1016/S0140-6736(12)61822-4)
- BASF (British Association of Social Workers). 2012. The Code of Ethics for Social Work. Statement of Principles. Available at <<https://www.basw.co.uk/codeofethics/>>
- Biller-Andorno, N., Grimm, H., Walker, R. L. 2015. Professionalism and ethics in animal research. *Nature Biotechnology* 33: 1027–1028. (doi:10.1038/nbt.3363)
- Blehert, D. S. 2012. Fungal disease and the developing story of bat white-nose syndrome. *PLoS Pathogens* 8, 7: e1002779. (doi:10.1371/journal.ppat.1002779)
- Britt, D. P. 1984. Ethics, ethical committees and animal experimentation. *Nature* 311: 503–506. (doi:10.1038/311503a0)
- BSA (British Sociological Association). 2002. Statement of Ethical Practice for the British Sociological Association (March 2002). Available at <<http://www.brit-soc.co.uk/the-bsa/equality/statement-of-ethical-practice.aspx>>
- Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes. Legislation for the protection of animals used for scientific purposes. Official Journal of the European Union 20.10.2010: L 276/33–276/79. Available at <http://ec.europa.eu/environment/chemicals/lab_animals/legislation_en.htm>
- Efferth, T., Banerjee, M., Paul, N.W., Abdelfatah, S., Arend, J. et al. 2016. Biopiracy of natural products and good bioprospecting practice. *Phytomedicine* 23, 2: 166–173. (doi:10.1016/j.phymed.2015.12.006)
- Garfield, E. 1996. What is the primordial reference for the phrase 'Publish or Perish'. *The Scientist* 10, 12: 11. Available at <<http://www.the-scientist.com/?articles.view/articleNo/17944/title/What-Is-The-Primordial-Reference-For-The-Phrase--Publish-Or-Perish--/>>
- Gluckman, P. 2014. The changing nature of science; can scientist rise to the challenge? Transcript of a speech to the Prime Minister of New Zealand, available at <<http://www.icsu.org/general-assembly/31st-general-assembly-auckland-2014/news/the-changing-nature-of-science-can-scientists-rise-to-the-challenge>>
- Hammett, D., Twyman, C. and Graham, M. 2015. *Research and Fieldwork in Development*. Routledge, London.
- Ito, R., Rakotondraparany, F. and Sato, H. 2013. Non-flying mammalian fauna of Ampijoroa, Ankarafantsika National Park. *Madagascar Conservation & Development* 8, 1: 45–48. (doi:10.4314/mcd.v8i1.7)
- Kolby, J. E., Smith, K. M., Ramirez, S. D., Rabemananjara, F., Pessier, A. P., et al. 2015. Rapid response to evaluate the presence of amphibian chytrid fungus (*Batrachochytrium dendrobatidis*) and ranavirus in wild amphibian populations in Madagascar. *PLoS ONE* 10, 6: e0125330. (doi:10.1371/journal.pone.0125330)
- Kombe, F., Anunobi, E.N., Tshifugula, N.P., Wassenaar, D., Njadingwe, D., et al. 2014. Promoting research integrity in Africa: An African voice of concern on research misconduct and the way forward. *Developing World Bioethics* 14, 3: 158–166. (doi:10.1111/dewb.12024)
- Mayer, T. 2015. Research integrity: the bedrock of the geosciences. In: *Geoethics. Ethical Challenges and Case Studies in Earth Sciences*. M. Wiss and S. Popoloni (eds.), pp 71–81. Elsevier, Amsterdam. (doi:10.1016/B978-0-12-799935-7.00007-1)

- Phillott, A. D., Speare, R., Hines, H. B., Skerratt, L. F., Meyer, E., et al. 2010. Minimising exposure of amphibians to pathogens during field studies. *Diseases in Aquatic Organisms* 92, 2–3: 175–185. (doi:10.3354/dao02162)
- Resnik, D. B. and Shamoo, A. E. 2011. The Singapore Statement on Research Integrity. *Accountability in Research: Policies and Quality Assurance* 18, 2: 71–75. (doi:10.1080/08989621.2011.557296)
- Royal Society of London 2011. Knowledge, Networks and Nations. Global Scientific Collaboration in the 21st Century. The Royal Society, London. Available at <<https://royalsociety.org/topics-policy/projects/knowledge-networks-nations/report/>>
- Sherwin, C. M., Christiansen, S. B., Duncan, I. J. H., Erhard, H. W., Lay, D. C., et al. 2003. Guidelines for the ethical use of animals in applied animal behaviour research. *Applied Animal Behaviour Science* 81, 3: 291–305. (doi:10.1016/S0168-1591(02)00288-5)
- Shuster, E. 1997. Fifty years later: the significance of the Nuremberg Code. *New England Journal of Medicine* 337, 20: 1436–1440. (doi:10.1056/NEJM199711133372006)
- Sikes, R. S., Gannon, W. L. and the Animal Care and Use Committee of the American Society of Mammalogists. 2011. Guidelines of the American Society of Mammalogists for the use of wild mammals in research. *Journal of Mammalogy* 92, 1: 235–253. (doi:10.1644/10-MAMM-F-355.1)
- South African Council For Social Services Professions. A Professional Council Striving for social justice through the promotion and enhancement of development social welfare. Professional Conduct and Ethics. Available at <<http://www.sacssp.co.za/Professionals/Conduct>>
- Stoekli, B., Wiesmann, U. and Lys, J.-A. 2014. A Guide for Transboundary Research Partnerships (2nd edition): 11 Principles and 7 Questions. , Bern, Switzerland. Swiss Commission for Research Partnerships with Developing Countries (KFPE). Available at <http://www.naturalsciences.ch/uuid/564b67b9-c39d-5184-9a94-e0b129244761?force_download>
- St. John, F. A. V., Brockington, D., Bunnefeld, N., Duffy, R., Homewood, K., Jones, J. P. G., Keane, A. M., Milner-Gulland, E. J., Nuno, A. and Razafimanahaka, J. H. 2016. Research ethics: assuring anonymity at the individual level may not be sufficient to protect research participants from harm. *Biological Conservation* 196: 208–209. (doi:10.1016/j.biocon.2016.01.025)
- Thalmann, U. and Geissmann, T. 2005. New species of woolly lemur *Avahi* (Primates: Lemuriformes) in Bemaraha (Central Western Madagascar). *American Journal of Primatology* 67, 3: 371–376. (doi:10.1002/ajp.20191)
- Waeber, P. O., Wilmé, L., Mercier, J.-R., Camara, C. and Lowry II, P. P. 2016 (Accepted). How effective have thirty years of internationally driven conservation and development efforts been in Madagascar? PLoS ONE.
- Wager, E. and Kleiner, S. 2011. Responsible research publication: international standards for authors. A position statement developed at the 2nd World Conference on Research Integrity, Singapore, July 22–24, 2010. In: *Promoting Research Integrity in a Global Environment*. T. Mayer and N. Steneck (eds.), pp 309–316. Imperial College Press / World Scientific Publishing, Singapore. Available at <publicationethics.org/files/International%20standard-s_authors_for%20website_11_Nov_2011.pdf>
- Wilmé, L., Ravokatra, M., Dolch, R., Schuurman, D., Mathieu, E., Schuetz, H. and Waeber, P. O. 2012. Toponyms for centers of endemism in Madagascar. *Madagascar Conservation & Development* 7, 1: 30–40. (doi:10.4314/mcd.v7i1.6)

CONFLICT OF INTERESTS

The authors declare no conflict of interests