

# LJMU Research Online

Wanger, TC, Traill, LW, Cooney, R, Rhodes, JR and Tscharntke, T

**Trophy hunting certification** 

http://researchonline.ljmu.ac.uk/id/eprint/9452/

Article

**Citation** (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

Wanger, TC, Traill, LW, Cooney, R, Rhodes, JR and Tscharntke, T (2017) Trophy hunting certification. Nature Ecology and Evolution, 1 (12). pp. 1791-1793. ISSN 2397-334X

LJMU has developed LJMU Research Online for users to access the research output of the University more effectively. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LJMU Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

The version presented here may differ from the published version or from the version of the record. Please see the repository URL above for details on accessing the published version and note that access may require a subscription.

For more information please contact <a href="mailto:researchonline@ljmu.ac.uk">researchonline@ljmu.ac.uk</a>

http://researchonline.ljmu.ac.uk/

## **Conservation: Trophy hunting certification**

**Authors:** Thomas C. Wanger<sup>1,2\*,†</sup>, Lochran W. Traill<sup>3,4\*,†</sup>, Rosie Cooney<sup>5,6</sup>, Jonathan Rhodes<sup>7,8,9</sup>, Teja Tscharntke<sup>1</sup>

**Standfirst:** Adaptive certification is the best remaining option for the trophy hunting industry in Africa to demonstrate sustainable and ethical hunting practices that benefit local communities and wildlife conservation.

## Affiliations:

<sup>1</sup>Agroecology, University of Göttingen, Germany; <sup>2</sup>Department of Ecology, Swedish University of Agricultural Sciences, Sweden; <sup>3</sup>School of Natural Sciences and Psychology, Liverpool John Moores University, L3 3AF United Kingdom <sup>4</sup>School of Animal, Plant and Environmental Sciences, University of the Witwatersrand, South Africa; <sup>5</sup>Interdisciplinary Environmental Studies, University of New South Wales, NSW 2052 Australia; <sup>6</sup>IUCN CEESP/SSC Sustainable Use and Livelihoods Specialist Group; <sup>7</sup>Centre of Excellence for Environmental Decisions, University of Queensland, Brisbane, QLD 4072 Australia, <sup>8</sup>School of Earth and Environmental Sciences, University of Queensland, Brisbane, QLD 4072 Australia. <sup>9</sup>Centre for Biodiversity and Conservation Science, University of Queensland, Brisbane, QLD 4072 Australia.

\*Correspondence to: <u>tomcwanger@gmail.com</u> (TCW); <u>lochran.traill@gmail.com</u> (LWT) †Equal contribution. The killing of well-known lions in 2015 and 2017 has sparked a polarised debate around trophy hunting, and led to bans on legally acquired trophies into key consumer countries. Such bans are a reaction to concerns about unethical or unsustainable hunting practices, but they do not consider the complex trade-offs around land and resource use in Africa, and the role that regulated hunting can play in wildlife conservation. Here, we propose an adaptive trophy-hunting certification scheme that is a market-based solution for sustainable and ethical hunting practices, building on the lessons learned from other natural-resource-use certification schemes. We argue that integrating effective compliance and wildlife monitoring, adaptive co-management, and a landscape approach into a certification scheme will spark a constructive discussion of trophy hunting, achieving conservation and community development objectives. We suggest a scheme that is routed through the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), and where the cost of accreditation is incurred by the hunting industry. Discredited by public opinion, certification may be the last option for the trophy hunting industry to demonstrate and assure sustainable practices that benefit wildlife conservation and rural livelihoods.

#### The trophy hunting debate

The debate around 'conservation hunting' is not new, but we elaborate on some of the key points here to provide context<sup>1,2</sup>. The principle argument in favour of trophy hunting in Africa is that the benefits generated through hunting can encourage the conservation of land - and wildlife populations therein – that may otherwise be lost to competing land uses such as agricultural or urban expansion<sup>2</sup>. To date, the revenues and other socio-economic and livelihood benefits gained through hunting have driven land use changes across large areas of private land in southern Africa from pastoralism toward wildlife, and have provided incentives for community based natural-resource management (CBNRM) programmes<sup>3</sup>. Full

bans on hunting in some African countries, notably Tanzania (1973-78) and Zambia (2000-03) led to a loss of biodiversity as a consequence of the loss of economic incentives<sup>3</sup>.

Contrastingly, valid criticism of the trophy hunting industry centres on issues around animal welfare, disruption to age-sex structures of targeted populations, localised extinction events, and the failure of income to reach local communities <sup>1,2</sup>. Much of the unethical and unsustainable practice that occurs within the hunting industry is a consequence of weak institutions and judiciaries, as well as fragile and inequitable economies in many African countries. Currently, there are no coherent international mechanisms to ensure transparent and sustainable trophy hunting practices to overcome these criticisms and leverage the benefits for wildlife populations and human livelihoods.

## **Certification in trophy hunting**

The most progressive, yet unrealised, solution is hunting certification; a consumer-focused mechanism whereby hunting operators adhere to strict environmental, social, and ethical criteria. Certification could provide guidance to the consumer and would allow the market to promote good practice.

Despite past discussions on the certification of the trophy hunting industry <sup>3</sup>, there are practically no certified hunting operators in Africa. The conservation non-governmental organization (NGO) *Savannas Forever* in Tanzania attempted a certification scheme in the mid-2000s, but this failed, due in part, to collusion between a corrupt political elite and hunting operators that refused the examination of trophies for age determination or to engage with local communities <sup>4</sup>. While there are many sources of guidance for good hunting practice, we are not aware of other attempts to use these as a basis for certification in Africa. Below we look at certification schemes of other extractive industries for guidance.

#### Lessons from natural-resource certification

Certification/accreditation schemes such as the Forest Stewardship Council (FSC), the Marine Stewardship Council (MSC), and *Rainforest Alliance* are part of a voluntary, marketbased, international standards system with strict criteria that allow the use of a recognisable label. Such schemes and the associated labels are now widespread. For example, FSCaccredited agencies have certified over 500 forestry operations, accounting for more than 29 million hectares in 56 countries <sup>5</sup>, and the MSC accounts for over 12% of world catch and nearly 22,000 products carry the MSC 'blue tag' in over 70 countries <sup>6</sup>. Agricultural certification further accounts for a significant proportion of tropical crops such as coffee, cocoa and palm oil <sup>7</sup>.

One reason why such schemes have proliferated is because of the support provided by enabling institutional structures and networks. Following pioneering efforts by the World-Wide Fund for Nature (WWF) and private industries to initiate FSC and MSC, several certification organisations created the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance (http://www.isealalliance.org) to develop multi-sector sustainability standards and to act as a strong multi-stakeholder platform. This platform has allowed stewardship councils to influence consumer choice through public pressure on relevant government authorities, as well as raise environmental awareness and elevate the profiles of eco-labels.

The success of the certification of extractive industries is subject to ongoing debate, but there are clearly documented positive outcomes. Certified seafood for example, is 3-5 times less likely to be subject to harmful fishing <sup>8</sup>, and certified organic farms are more biodiversity-friendly<sup>9</sup>. However, a review of certification initiatives of fisheries, agriculture and tourism found only weak evidence for positive environmental, social and economic effects <sup>10</sup>. Moreover, MSC-certified fisheries have been criticised for over-fishing, high levels of by-catch and incompetence <sup>11</sup>. Accreditation schemes have also been accused of underconsidering livelihood issues when specifying their goals, for inadvertently creating trade barriers for developing nations, and for the unattainability of criteria by small-scale producers <sup>12</sup>.

#### Adaptive trophy hunting certification

We propose a trophy hunting certification scheme that leverages existing institutional frameworks and international networks for an enabling environment, and which builds on strong market demand for sustainable hunting practices. It also explicitly integrates monitoring of compliance and conservation outcomes and uses these monitoring outcomes to inform adaptation of the certification criteria over time (Fig. 1). The monitoring framework provides a strong evidence basis for continual improvement of the certification scheme and ensures, for instance, that livelihood issues are considered and criteria can be met by small-scale producers.

#### Leveraging existing frameworks and international networks

An effective trophy hunting certification scheme should be routed through CITES, the primary framework for regulating international movement of trophies through established quotas. CITES has experience in co-developing enabling structures for improved communication and information sharing between relevant agencies, as for law enforcement agencies in Europe and Africa involved in combating wildlife crime (i.e., EU-TWIX, <a href="http://eu-twix.org/">http://eu-twix.org/</a>; Africa-TWIX, <a href="http://www.traffic.org/home/2016/2/16/platform-to-enhance-collaboration-in-countering-illegal-wild.html">http://www.traffic.org/home/2016/2/16/platform-to-enhance-collaboration-in-countering-illegal-wild.html</a>). Such monitoring structures and tight networks among the involved stakeholders are useful for wildlife trade issues in Africa and almost certainly for trophy-hunting certification. Transparent sustainability standards for

trophy hunting should be developed through ISEAL in collaboration with hunting industry stakeholders. The certification scheme could achieve credibility by partnering with major conservation organisations with expertise and infrastructure on-the-ground.

#### Considering market demands, certification costs and funding

The western-based hunting market is generally supportive of wildlife conservation and community empowerment. Indeed, 86% of trophy hunters visiting Africa were more likely to purchase a hunting package that benefited local communities than one that did not, up to 99% were unwilling to support hunting operators that were not conservation friendly<sup>3</sup>, and hunters were prepared to pay an additional USD 3,900 for 10% of their overall hunting fees to be redistributed to local communities <sup>13</sup>. This demand for hunting packages certified for environmental and social benefits allows certified hunting operators to charge premium prices that can be used to cover certification costs.

Nonetheless, one of the key challenges to implement trophy hunting certification remains the coverage of certification costs. Under MSC, for example, cost of accreditation is between USD  $15,000 - 120,000^{11}$  with a median of USD 67,000, and annual certification fees for a certifiable unit range from USD 200 - 2,000 (https://www.msc.org/get-certified/use-the-msc-ecolabel/costs). However, the cost of hunting operator accreditation could be spread over time, and a premium for a certified hunt should be passed on to hunters, given that interviewed hunters were prepared to pay up to USD 3,900 for hunting that benefits communities.

## Monitoring and the use of adaptive management to inform certification criteria

The criteria for our proposed certification scheme will need to ensure 1) adequate benefits of hunting to landowners and/or relevant communities; 2) species-specific quotas and strict

limits on minimum age and trophy size, and 3) ethical standards (Table 1). Achieving these objectives will require effective monitoring of certification performance and subsequent modification of the certification scheme where objectives are not met. An effective monitoring program must extend beyond a narrow focus on monitoring hunting operator compliance to the broader monitoring of the conservation and social benefits. A key role for a broader monitoring remit is evaluating the effectiveness of certification criteria to achieve conservation and social objectives and to trigger improvement of these criteria over time. Major conservation NGOs and the creation of new institutional structures could play a major role in facilitating adaptive co-management, collaborative learning, and monitoring among local communities, government agencies, hunting operators, and other relevant organisations<sup>14</sup>. Engagement with these institutional structures could also be a certification requirement. A key aspect of this approach should be the continued re-evaluation of the certification criteria in response to monitoring data on conservation and social benefits, quotas, and ethical standards; an explicitly adaptive approach administered by the NGOs.

#### Integrating global standards into local structures – a landscape approach

Trophy hunting certification also needs to address a key challenge inherent to all resource-use certification schemes: the integration of a global sustainability standard with variable local environments and multi-stakeholder perspectives<sup>15</sup>. Specifically, land tenure can be private, communal, or state-owned, and different groups of local people may use land for subsistence or commercial cropping, livestock farming, and wild animal harvest across the different tenures. A landscape approach, whereby the entire landscape is certified, may be a tangible solution to achieve broader sustainability criteria, such as the protection of ecosystem services (Tab. 1) that are critical for local communities. It would also increase the cost efficiency of certification, because a conglomerate instead of individual hunting operators

can be certified at once. The adaptive learning and co-management framework would be particularly well suited to certification at landscape scales where collaboration among multiple communities, government agencies, hunting operators and the certification institutions will be key.

## Conclusions

Trophy hunting must follow sustainable practices to minimise harmful effects on wildlife populations, to benefit rural communities, and be able to demonstrate these to ensure a continued social licence to operate. We argue that an adaptive certification scheme can contribute to conservation efforts and livelihoods. To be successful, such a scheme should be linked to international standard-setting bodies and conservation organisations, leverage an existing market, and build on effective monitoring and adaptive co-management strategies. Combined with a landscape level approach this may serve as a role model for best practice natural-resource-use certification. However, availability of expertise and credible information on the conduct and impact of trophy hunting are necessary.

Indeed, given the shift in public opinion toward trophy hunting, the industry faces possible extinction through increased international sanctions, poor community relations and over-exploitation of wildlife populations. Thus, it seems to be in the direct interest of the trophy hunting industry to embrace hunting certification for sustainable practices that can create opportunities for wildlife and livelihood benefits. Failing this, alternative sources of funding for the conservation effort in Africa will need to be sourced.

## References

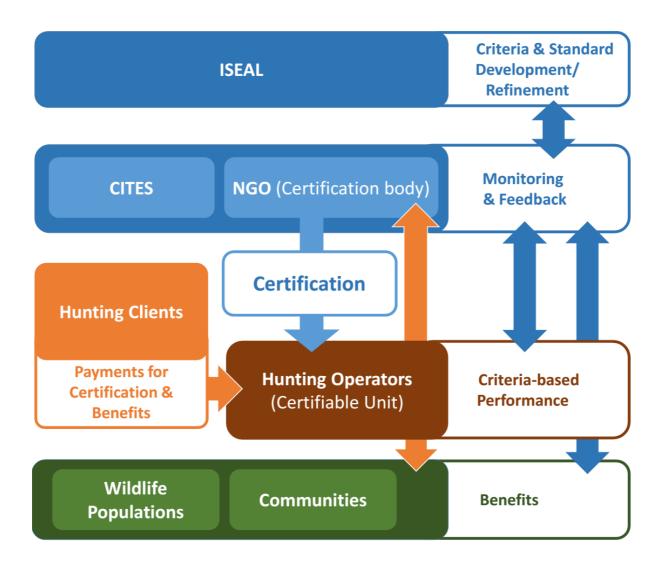
 Lindsey, P., Balme, G., Funston, P., Henschel, P. & Hunter, L. T. B. Conserv. Lett. 9, 296–301 (2016).

- Di Minin, E., Leader-Williams, N. & Bradshaw, C. J. A. *Trends Ecol. Evol.* **31**, 99–102 (2016).
- Lindsey, P. A., Frank, L. G., Alexander, R., Mathieson, A. & Romanach, S. S. Conserv. Biol. 21, 880–883 (2007).
- Packer, C. *Lions in the Balance: Man-Eaters, Manes and Men with Guns*. (University of Chicago Press, 2015).
- 5. Gullison, R. E. *Oryx* **37**, 153–165 (2003).
- 6. Bush, S. R. & Oosterveer, P. Sustainability 7, 1861–1883 (2015).
- 7. Potts, J. et al. State of Sustainability Initiatives Review 2014: Standards and the Green Economy. (2014).
- 8. Gutierrez, N. L. et al. Plos One 7, (2012).
- 9. Tuck, S. L. et al. J. Appl. Ecol. 51, 746–755 (2014).
- 10. Blackman, A. & Rivera, J. Conserv. Biol. 25, 1176–1185 (2011).
- 11. Christian, C. et al. Biol. Conserv. 161, 10–17 (2013).
- McGrath, D. G., Castello, L., Almeida, O. T. & Estupinan, G. M. B. Soc. Nat. Resour.
  28, 513–529 (2015).
- Fischer, A., Weldesemaet, Y. T., Czajkowski, M., Tadie, D. & Hanley, N. Conserv. Biol.
  29, 1111–1121 (2015).
- 14. Armitage, D. R. et al. Front. Ecol. Environ. 7, 95-102 (2009).
- 15. Tscharntke, T. et al. Conserv. Lett. 8, 14–23 (2015).

Acknowledgments: TCW was funded by the Swedish University of Agricultural Sciences. LWT was supported by a Carnegie Corporation of New York Fellowship through the Global Change and Sustainability Research Institute, University of the Witwatersrand (Grant B8749.R01). TT was supported by the DFG-CRC 990 EFForTS and the BMBF project Limpopo Living Landscapes. TCW thanks Marielle Fortin-McCuaig for initial discussions on the topic.

**Author Contributions:** TCW and LWT conceived the work. TCW, LWT, RC, JR and TT wrote the manuscript.

**Competing Financial Interests:** The authors declare that there are no competing financial interests.



**Fig. 1**. Schematic overview of adaptive trophy hunting certification. International institutions and networks (ISEAL, NGO and CITES) provide the background to develop criteria and

standards. The NGO may act as the certification body and certifies the hunting operator (light blue arrow). Hunting clients pay hunting operators and provide the financial resources (orange arrows) to pay for the benefits of wildlife populations, rural communities, and costs of the certification body. Hunting operators and overall benefits are monitored by the NGO and CITES based on criteria that can be improved through adaptive management and in close discussion with ISEAL (dark blue arrows). Table 1. Proposed certification criteria for adaptive trophy hunting, including a regional and

landscape focus.

### Local Community Development

- Participatory approaches integrating the local community
- Ensuring benefits for local people (e.g., through economic benefits such as fees for hunting, use of local accommodation, carcass use)
- Developing certification standards in roundtable discussions with all stakeholders (e.g., local community representatives, hunting operators, conservation NGOs, land owners, state & country representatives)
- Contribution to restrict poaching in the hunting area
- Keeping game numbers on a socially sustainable level (e.g., preventing damage from wildlife)

## Legislation

- Hunting needs to follow local customary rights as well as regional and national legislation
- Legislation and administrative regulations need to be enforced
- Allow stocking land only with native game and tolerate naturally occurring predators
- Enforcement of local community involvement and acknowledgement of their customary rights
- Involvement of international bodies (e.g., CITES, hunting lobbies)

#### Hunting Ethics

- Selective hunting avoiding negative selection pressure on populations (e.g., species-specific age limits, preference for animals near or at post-breeding age, no pressure on genetically dominant and healthy animals, clear quotas)
- Intolerance of unethical practices, such as 'canned hunting' (i.e., the practice of breeding animals then released to be hunted)
- Individual accreditation of hunters
- Intolerance of cruelty to animals

## **Regional and Landscape Focus**

- Regional focus on community development and sustainable conservation of wildlife populations
- Integrated approach to protect ecosystem services for local communities