

Curriculum for EA Oxford Wild Animal Welfare Reading Group

Curriculum (Weeks 1-8)

Each week will be centred around a particular topic, and will include a set of questions, as well as some reading, which should take you between 1-3 hours to complete. I have marked some reading as 'optional', although I'd recommend at least reading the abstract of these items to see if you are interested.

The aim is that the reading and discussion will help you to have a more informed view on the questions I have outlined. It might therefore be helpful to keep them in your mind as you read. You can also write notes on your thinking, either by making a copy of this document ('File' -> 'Make a Copy'), or however you prefer to take notes.

In the curriculum, I'll suggest we read a couple extracts from [this book](#) by Animal Ethics, where they are relevant. However, if you have the time or inclination, I think it would be great to read it in full - it's pretty easy going, and covers a lot of useful introductory ground.

Also, if you are the kind of person who likes listening to podcasts, then you could consider [this podcast by Wild Animal Initiative](#) (it's not super academic, but offers an interesting introduction to some of the topics here), [these two](#) episodes of the Sentience Institute podcast, and/or [this episode](#) of the 80,000 hours podcast.¹

¹ A note on this episode from Michelle Graham, director of Wild Animal Initiative: This podcast episode is a decent overview, but watch out for a few things while listening:

- There are some pretty specious evolutionary arguments forwarded in a few sections, e.g. around 1:47.
- Neither speaker is particularly sympathetic to naturalness and preservation arguments (fair enough, I'm not either), but this leads to somewhat of a failure to steelman the opposing side. While I don't think the cases for these positions from naturalness are very good, they can be framed much more persuasively than they are in this podcast.
- There are a few arguments for doing wild animal welfare work in the near term that are underemphasized in the episode, such as changing directions of certain movements or technological uses in a way that will unlock new paths to impact.

Week 1: The situation of wild animals

Questions

- How many wild animals are there?
 - Which, if any, are (affectively) sentient or can suffer?
- What are the lives of wild animals like?
 - How good are they? How bad are they?
 - Are there some wild animals whose lives are 'not worth living'?
- What are the biggest sources of suffering in nature? How can we tell?
 - Do wild animals suffer from the same kinds of experiences as humans?²

Reading

- G. Ray, [How many wild animals are there?](#) (5 mins)
- Animal Ethics, [Criteria for recognizing sentience](#), and [What beings are conscious?](#) (15 mins)
 - *On affective sentience*: A. Soryl, [Establishing the Moral Significance of Wild Animal Welfare and Considering Practical Methods of Intervention](#) ch. 2, p. 10-19 (20 mins)
 - *On insect sentience*: H. Howe, [Improving Pest Management for Wild Insect Welfare](#), p.3-5 (5 mins); (Optional) B. Tomasik, [Do Bugs Feel Pain?](#) (30 mins)
- Animal Ethics, [The situation of animals in the wild](#) (10 mins)
 - (Optional) For much more detail, see [Introduction to Wild Animal Suffering](#), p16-81 (80 mins)
- D. Mellor, [Updating Animal Welfare Thinking: Moving beyond the "Five Freedoms" towards "A Life Worth Living"](#) (40 mins)
- L. Hecht, [How wild animals die: what we know so far](#) (15 mins)
- L. Hecht, [Accounting for demography in the assessment of wild animal welfare](#) (25 mins)
- J. Schukraft, [Research Summary: The Intensity of Valenced Experience across Species](#) (5 mins)
- J. Schukraft, [Research Summary: The Subjective Experience of Time](#) (5 mins)
- T. Langkilde & R. Shine, [How much stress do researchers inflict on their study animals? A case study using a scincid lizard, *Eulamprus heatwolei*](#) (35 mins)
- (Optional) Y.K. Ng, [Towards Welfare Biology: Evolutionary Economics of Animal Consciousness and Suffering](#) (50 mins)
 - (Optional) see also: [How Much Do Wild Animals Suffer? A Foundational Result on the Question is Wrong](#) (5 mins)
- (Optional) B. Tomasik, [The Predominance of Wild-Animal Suffering over Happiness: An Open Problem](#) (30 mins)

² A helpful note on this question from Michelle: While we haven't summarized all of the data yet, we already know quite a bit about what causes different vertebrates different amounts of bother. Neglected areas include types of dying process (hard to get data on), things that are natural (lots of studies focus on stress caused by human impacts these days, although not all), and invertebrate/non mammalian/non avian stress (systems are a different, harder to measure, less consensus that they can feel pain especially for fish and invertebrates).

- (Optional) W. Bradshaw, [Assessing biomarkers of ageing as measures of cumulative animal welfare](#) (30 mins)
- (Optional) B. Tomasik, [How painful is death from starvation or dehydration?](#) (30 mins)
- (Optional) P. Low et al., [The Cambridge Declaration on Consciousness](#) (5 mins)
- (Optional) Y. M. Bar-On et. al., [The biomass distribution on Earth](#) (25 mins)
 - NB. biomass is difficult to convert to number of individuals
- (Optional) Z. N. Ulzegen et al., [The preference and costs of sleeping under light at night in forest and urban great tits](#) (30 mins)

Week 2: Ethics

Questions:

- Are there moral reasons to care about wild animals? Are there moral reasons *not* to care about wild animals?
 - What are the moral implications of (affective) sentience which we discussed last week?
- Do we have different obligations or moral relationships to suffering that we did not cause?
- Should we intervene in 'natural' states? What kinds of states are natural? How can we tell?

Reading:

- Wikipedia, [Appeal to Nature Fallacy](#) (5 mins)
- M. Torres, [The Case for Intervention in Nature on Behalf of Animals](#) (45 mins)
- A. Mannino, [Humanitarian Intervention in Nature](#) (40 mins)
- Animal Ethics, [The Relevance of Sentience](#) (10 mins)
- Animal Ethics, [Why we should give moral consideration to individuals rather than species](#) (15 mins)
- (Optional) C. Palmer, [Against the View that We Are Normally Required to Assist Wild Animals](#) (30 mins)
 - (Optional) C. Faria, [Disentangling Obligations of Assistance](#) (30 mins)
- (Optional) J. Mosquera, [The Harm They Inflict When Values Conflict](#) (40 mins)
- (Optional) E. Paez, [Refusing Help and Inflicting Harm](#) (45 mins)

Week 3: Cause prioritisation

Questions:

- What's the case for wild animal welfare being an altruistic priority?
- Why do people *not* currently prioritise wild animal welfare? How should we evaluate their arguments?

Reading:

On cause prioritisation in general:

- 80,000 Hours, [Global priorities: What are the most pressing problems to work on?](#) (10 mins)
- 80,000 Hours, [One approach to comparing global problems in terms of expected impact](#) (45 mins)

On prioritising wild animals:

- This week, don't feel the need to read all of these (especially if you also read about cause prioritisation as a concept). Instead, you can pick a few of these as examples of the kinds of arguments people give for why helping wild animals is important.
- B. Tomasik, [The Importance of Wild-Animal Suffering](#) (50 mins)
- Animal Charity Evaluators, [Cause Priorities: Wild Animal Suffering](#) (5 mins)
- O. Horta, [Animal Suffering in Nature: The Case for Intervention](#) (1hr15 mins)
- M. Vinding, [Ten Biases Against Prioritizing Wild-Animal Suffering](#) (30 mins)
- B. Davidow, [Why Most People Don't Care About Wild-Animal Suffering](#) (10 mins)

- (Optional) J. Schukraft, [Invertebrate Welfare Cause Profile](#) (1h15 mins)
- (Optional) J. Savoie, [Which animals need the most help from the animal advocacy movement?](#) (10 mins)
- (Optional) J. Savoie, [How to make an impact in animal advocacy, a survey.](#) (10 mins)

Week 4: Case studies of interventions - disease & parasites

Questions:

- Are there promising ways to prevent wild animals from suffering from disease & parasites?
 - Can some of this work reduce the human burden of disease too?
- What work has been done already? What work might be done in the future?
 - What could 1 extra person do in this field? 10? 100?
- Are there crucial issues from previous weeks where the view we take on them affects how good we think these interventions will be?
- What advantages are there to working on disease & parasites? What disadvantages?
 - How do these pros and cons compare to the other case studies we will look at?
- What new information would be most useful for this field?

Reading:

- G. Ray, [Parasite Load and Disease in Wild Animals](#) (40 mins)
- Animal Ethics, [Introduction to Wild Animal Suffering](#), p.24-34 and p.155 (30 mins)
- J. Capozzelli, [Reducing the burden of disease: the One Health approach](#) (15 mins)
- [Wildlife Health and Disease Challenge Grant](#) (10 mins)
 - e.g. [Validation of a novel oral anthrax vaccine for native and exotic wildlife in Texas](#) (5 mins)
- Animal Ethics, [The potential to reduce the suffering of animals living in the wild by using eDNA sampling](#) (30 mins)
- S. P. Sinkins and F. Gould, [Gene drive systems for insect disease vectors](#) (45 mins)
 - You might instead read this more accessible blogpost: ["Gene Drives" And CRISPR Could Revolutionize Ecosystem Management](#)

Week 5: Case studies of interventions - population control

Questions:

- Are there promising ways to improve wild animal welfare via population control?
- What work has been done already? What work might be done in the future?
 - What could 1 extra person do in this field? 10? 100?
- Are there crucial issues from previous weeks where the view we take on them affects how good we think these interventions will be?
- What advantages are there to working on population control? What disadvantages?
 - How do these pros and cons compare to the other case studies we have looked at?
- What new information would be most useful for this field?

Reading:

- You might want to prioritise just reading these websites, to see what is already being or might be done:
- L. Hecht, [Optimal population density: trading off the quality and quantity of welfare](#) (15 mins)
- [The Botstiber Institute for Wildlife Fertility Control](#) (website)
 - See also [this short post](#) on why it was founded
- S. Liedholm, [Our proposal for a field study of pigeon contraception](#) (5 mins)
- B. Masters, [Can Fertility Control Keep Wild Horse Herds in Check?](#) (5 mins)
- Oxitec, [Our Technology](#) (5 mins)
- K. E. Lange, [The long road to fertility control](#) (5 mins)
- American Bird Conservancy, [Trap. Neuter. Release](#) (5 mins)
- T. B. Lauber, et al. [The role of ethical judgments related to wildlife fertility control](#) (40 mins)
- P. Eskander, [An Analysis of Lethal Methods of Wild Animal Population Control: Vertebrates](#) (45 mins)
- P. Eskander, [An Analysis of Lethal Methods of Wild Animal Population Control: Invertebrates](#) (40 mins)
- (Optional) H. Cayuela et al., [Multiple density-dependent processes shape the dynamics of a spatially structured amphibian population](#) (1hr)

Week 6: Practicalities of intervening for wild animals

Questions:

- Can we (reliably) help wild animals with our actions?
 - If not, might we be able to do so in the future?
 - What would we need to learn? How would we have to change our approach?
- How do we minimise risk of harm?
 - What different risks do we encounter in this space?
 - Why is it important to minimise risk?

Reading:

- N. Delon, D. Purves, [Wild Animal Suffering is Intractable](#) (1hr 10 mins)
- Wild Animal Initiative, [Uncertainty in wild animal welfare is not an intractable problem and welfare biology is well-positioned to tackle it](#) (15 mins)
- P. Eskander, [To Reduce Wild Animal Suffering We Need To Find Out If The Cause Area Is Tractable](#) (20 mins)
- S. Eckerström Liedholm, [Persistence and reversibility: Long-term design considerations for wild animal welfare interventions](#) (1hr)

Week 7: Advocacy

Questions:

- What are the best ways to talk about/present wild animal welfare?
 - Does this differ for different audiences? How?
 - Are there less controversial ways to present wild animal welfare? How do we avoid seeming weird, niche, contrarian?
- Who currently cares about wild animals? Who are the most promising targets for advocacy?
- How different are the aims/interests of conservationists, environmentalists, and people who care about wild animal welfare?

Reading:

- Utility Farm, [Effective Communication Strategies: Addressing Wild Animal Suffering](#) (40 mins)
- Utility Farm, [Seven Broad Rules for Effective Discussions of Participation Ethics](#) (15 mins)
- Faunalytics, [Wild Animal Suffering: Getting The Public To Care](#) (5 mins)
- A. Rowe, [Beausoleil et al. show the value of collaboration between wild animal welfare advocates and conservationists](#) (15 mins)
- J. Capozzelli, [What is the value of wild animal welfare for restoration ecology?](#) (10 mins)
- J. Capozzelli, [Building healthy relationships between people and nature to benefit wild animals](#) (15 mins)
- J. Capozzelli, [Applying the Conservation Evidence Database to wild animal welfare](#) (15 mins)
- (Optional) [Building Support for Wild Animal Suffering \[Transcript\]](#) (50 mins)

Week 8: Careers

Questions:

- What organisations currently work in this area? What do they do that's impactful? What could they do to have more impact?
- Is the area talent constrained or funding constrained, or something else? What are the biggest bottlenecks to helping wild animals today?
 - How might they be addressed?
- If the area is talent constrained, what skill profile is needed?
- If the area is funding constrained, how might we get more funding?
- What are the biggest unanswered questions in wild animal welfare today? What work could be done to tackle them? Is there a particular project that could be valuable for wild animals?
 - What disciplines within wild animal welfare need the most researchers?
- What are your best next steps? What do you need to learn more about, or what do you need to do, based on what you have learned?

Reading:

Note: This week has no time estimates, as these readings are mostly websites and pages to explore in as much detail as you find useful.

- *Extant Organisations:*
 - [Animal Ethics](#)
 - [Wild Animal Initiative](#)
 - [Rethink Priorities](#)
- *Impact:*
 - Animal Charity Evaluators, [Review of Wild Animal Initiative](#)
 - Animal Ethics, [Animal Ethics work in 2020](#)
- *Careers:*
 - H. Howe, [Careers in wild animal welfare](#)
 - Animal Advocacy Careers, [Job Board](#)
 - J. Spurgeon, [Pathways into animal advocacy research](#)
 - O. Horta, [How we can best help wild animals](#) (particularly 16:40 onwards)

Extended Bibliographies

[Oscar Horta's Bibliography](#)

[Animal Ethics Bibliography](#)

[Pablo Stafforini's Bibliography](#)

[Wild Animal Welfare - EA Forum](#)

[A library of scientific references relevant to welfare biology](#)

[Reducing Wild Animal Suffering Literature Library: Consciousness and Ecology](#)