Outputs of Program 1: Grantmaking

Last updated 15 Jul 2021

Major achievements in the past 18 months

- 1. Secured a <u>\$3.5 million grant from Open Philanthropy</u> to support academic research on wild animal welfare. \$3.07 million is earmarked for regranting to academic researchers, with the remainder to be used to execute the program: staffing, marketing, software, legal consultation, and diversity, equity, and inclusion consultation. See additional documentation for details.
- 2. Designed a process to efficiently and rigorously evaluate grant proposals. See additional documentation for details.
- 3. Identified juvenile welfare as a highly important, tractable, and neglected subject in wild animal welfare research.
- 4. Announced our <u>research fund</u> and launched our first <u>call for proposals</u>, which is on the theme of juvenile welfare. Final funding decisions will be announced in early 2022.
- 5. Developed plans with <u>Dr. David Smith</u> (Mississippi State University, College of Veterinary Medicine) to conduct a retrospective analysis of the <u>effects of screwworm eradication in North America</u>. Pending Dr. Smith's final approval, we will provide him funding to hire a postdoc to pursue this project. To our knowledge, this will be the first project to apply system dynamics techniques to study wild animal welfare. If successful, it will produce a generalizable approach to predict and evaluate the effects of parasite eradication programs.
- 6. Partially funded ecotoxicologist <u>Dr. Manrico Sebastiano</u> (National Museum of Natural History of Paris) to investigate the <u>relationships between mercury poisoning</u>, <u>parental behavior of magnificent</u> <u>frigatebirds</u> (*Fregata magnificens*), and viral infections in juveniles.

Major achievements prior to 2020

Because this program was established in 2021, this program does not have any outcomes prior to 2020.

Outputs of Program 2: Researcher Services

Last updated 15 Jul 2021

Major achievements in the past 18 months

 Successfully advised <u>Dr. Davide Dominoni</u> (University of Glasgow Institute of Biodiversity, Animal Health & Comparative Medicine) on a project proposal that received \$105,000 (81,000 GBP) from Open Philanthropy. He is investigating telomere length as an objective measure of lifetime welfare, a potentially powerful new method of assessing animal welfare that could be applied to a wide variety of species.

Dr. Dominoni's project has

been <u>covered in a Vox article</u> on wild animal welfare.

- 2. Designed a field experiment in collaboration with avian physiologist <u>Dr. Ignacio Moore</u> (Virginia Tech Department of Biological Sciences), avian physiologist PhD candidate <u>Jessica Wright-Lichter</u> (Tufts University, Department of Biology), and leading wildlife contraception expert <u>Dr. Alan Rutberg</u> (Tufts University, Cummings School of Veterinary Medicine). The <u>proposed project</u> would study whether a commercially available contraceptive (nicarbazin, brand name <u>OvoControl</u>) can improve the welfare of urban rock pigeons (*Columba livia*) by eliminating the need for lethal control and by reducing the frequency of starvation. If effective, this would be an easily implementable intervention that could engender support for wild animal welfare issues from new audiences.
- 3. Decided not to fund the pigeon contraception project ourselves right away, instead opting to test whether non-EA animal welfare foundations would be interested. We submitted grant proposals to the Morris Animal Foundation and the Botstiber Institute for Wildlife Fertility Control, aiming to (i) demonstrate the viability of our grant assistance services to future collaborators, (ii) develop a relationship with new funders, and (iii) improve our understanding of their grantmaking processes. Because both applications were rejected, we did not accomplish the first of those goals, but we did accomplish the second and third.
- 4. Worked with ecotoxicologist Dr. Manrico Sebastiano (National Museum of Natural History of Paris) to consider expanding his <u>frigatebird project</u> to compare the direct welfare impacts of two data collection methods. Dr. Sebastiano expressed enthusiasm, but the discussions are still ongoing.
- 5. Helped Dr. Sebastiano crowdfund for his frigatebird project. We introduced him to a <u>challenge grant</u> <u>offered on Experiment.com</u> and helped him advertise his <u>campaign</u> (including an <u>appeal</u> to our email subscribers, a <u>blog post</u> we shared across social media, and Google Ads for a <u>custom landing page</u> on our website). With 87 supporters, in addition to Wild Animal Initiative, the campaign won second place in the competition, complete with a \$750 prize.
- 6. Began developing a postdoctoral project idea with PhD candidate <u>Shaina Sadai</u> (University of Massachusetts Amherst, Climate System Research Center) on the topic of how climate change impacts wild animal welfare and began identifying potential mentors. We plan to help Shaina secure funding for such a project later this year.

- 7. Launched a postdoctoral working group consisting of three final year PhD students and one postdoctoral researcher. The group has met four times and plans to meet twice more by the end of August 2021. The group serves two purposes: to help the participants build community and generate project ideas in the wild animal welfare space, and to develop a program aimed at researchers at a similar career stage to help them become established wild animal welfare researchers.
- 8. Published a blog article sharing advice with potential researchers on how to <u>build a career in wild</u> <u>animal welfare</u>.

Major achievements prior to 2020

 Successfully advised <u>Dr. Samniqueka Joi-Weaver Halsey</u> (University of Missouri, College of Agriculture, Food & Natural Resources) on a project proposal that received \$189,000 from Open Philanthropy. She is compiling a database of wildlife diseases and interventions and creating a stress index to estimate the burden of disease on wild animals

Dr. Joi-Weaver Halsey's project has been

covered in a Vox article on wild animal welfare.

Outputs of Program 3: Outreach

Last updated 15 Jul 2021

Major achievements in the past 18 months

- 1. Through presentations, panel discussions, and other public outreach efforts, spread awareness of wild animal welfare to a diverse audience of individuals from academia and the general public, including:
 - 9 members of NYU's Animal Studies masters program and its Center for Environmental and Animal Protection who participated in a WAI-led discussion on wild animal welfare (2 professors, 1 postdoc, 1 staff member, 5 masters students);
 - Attendees of a <u>lightning talk</u> with a WAI panelist as part of an <u>Animal Aid webinar</u> on the ethics of invasive species management;
 - 24 students at Northeastern University who attended a WAI-hosted talk about the need and opportunities for humans to act on behalf of wild animals; and
 - Audiences at 16 effective altruism conferences, seminars, and meetups, including students at the Massachusetts Institute of Technology, Oxford University, and Princeton University.
- 2. Through substantive meetings, established relationships with 44 new researchers, including:
 - A conservation biologist at a major zoo
 - The director of a major wildlife rehabilitation center
 - An ecosystem services modeler interested in expanding his work to model benefits to all species in a community, not just humans;
 - 3 leading compassionate conservation and conservation ethics experts wanting to better understand the complex relationship between conservation and wild animal welfare; and
 - A legislative correspondent working in the U.S. Congress involved with research on novel genetic technologies that could be utilized to improve wild animal welfare.
- 3. Expanded WAI's <u>academic advisory panel</u> to 6 members.
- 4. Deepened relationships with 4 mission-aligned researchers through collaborations on projects of mutual interest and invitations to speak to WAI staff, including:
 - Leading scholar of emerging biotechnology regulation

who advised on a WAI project

mapping the regulatory landscape for the use of gene drives in wild animals;

 Compassionate conservation veterinarian Dr. Andrea Harvey (University of Technology Sydney, School of Life Sciences, Centre for Compassionate Conservation) who provided feedback on a WAI manuscript later <u>published in *Biological Reviews*</u>;

- Conservation veterinarian <u>Dr. Julia Ponder</u> (University of Minnesota, College of Veterinary Medicine), who spoke at a WAI staff meeting about her experience leading the effort to monitor non-target effects of rodenticides on wild animals on the Galápagos Islands; and
- WAI advisor Dr. David Smith (Mississippi State University, College of Veterinary Medicine), who spoke at a WAI staff meeting about systems analysis of wildlife epidemiology and fertility control.

Major achievements prior to 2020

- 1. Established relationships with 37 researchers in relevant fields, including epidemiology, ecology, biology, and conservation.
- 2. Produced <u>Wildness</u>, a podcast exploring a wide variety of concepts in wild animal welfare through interviews with diverse scholars and advocates.
- 3. Represented wild animal welfare at 9 conferences and workshops.

Outputs of Program 4: Internal Research

Last updated 15 Jul 2021

Major achievements in the past 18 months

- 1. Published 2 original research articles in peer-reviewed scientific journals:
 - In a March 2020 *Restoration Ecology* opinion article entitled, "What is the value of wild animal welfare for restoration ecology?," Researcher Jane Capozzelli, Researcher Luke <u>Hecht</u>, and Dr. Samniqueka Joi-Weaver Halsey (University of Missouri, College of Agriculture, Food & Natural Resources) articulated the different human-nature relationships envisioned by restoration ecology and the wild animal welfare ethic; and
 - In a June 2021 *Biological Reviews* article entitled, "<u>The importance of considering age when</u> <u>quantifying wild animals' welfare</u>," Luke explored the complex relationships between welfare and food webs to learn if reducing predation, a classic example of wild animal suffering, would actually improve wild animal welfare
- 2. Submitted a <u>public comment to the U.S. Environmental Protection Agency</u> urging the agency to cancel its re-registration of the pesticide Avitrol. In the comment, we argued that the Federal Insecticide, Fungicide, and Rodenticide Act requires regulators to assess indirect wild animal welfare effects before re-registering pesticides and highlighted the potential for Avitrol to cause pigeons and other birds to starve as a result of frightening them away from limited food resources. Avitrol is still under review as of the time of this evaluation.
- 3. Self-published 14 research notes and 3 opinion articles on our website:
 - Luke authored a series of research notes on <u>why cause of death matters to wild animal</u> welfare, how it has been studied so far, and the state of cause-of-death research;
 - Jane adapted her *Restoration Ecology* article into a research note to explain to a lay audience how the fields of wild animal welfare and restoration ecology could complement each other;
 - Postdoctoral Research Fellow <u>Simon Eckerström Liedholm</u> authored an opinion article exploring how those interested in wild animal welfare can use clear intermediate goals—called "<u>signposts</u>"—to guide our actions in the short term until we better understand what will help wild animals most in the long term;
 - Luke published a research note summarizing the U.K. government's plan to give <u>contraceptives to gray squirrels</u>, what it means for the welfare of these squirrels, and how it could impact the advancement of wild animal welfare research as a whole;
 - Jane released a research note reviewing the increasingly popular <u>One Health approach</u> to public health and veterinary medicine and how such an approach could be utilized to benefit wild animal welfare;
 - Simon published a blog post on why we are calling on the U.S. Environmental Protection Agency to assess the <u>welfare risks of an avian pesticide</u>;

- Deputy Director <u>Cameron Meyer Shorb</u> published a research note explaining <u>how WAI</u> <u>defines welfare</u> and how that definition relates to other uses of the term, helping to disambiguate a foundational concept in the field;
- Jane published a case study on the welfare costs and benefits of using <u>biotelemetry devices</u> to provide highly detailed data on wild animals' activities; and
- Executive Director <u>Michelle Graham</u> explained how WAI balances the costs and benefits of <u>project prioritization</u> in an unexplored area.
- 4. Additional research efforts saw significant progress during this time period that is worth noting, but have not yet been published in a scientific journal or on our website:
 - Biotechnology Legal Fellow <u>Suzanne Van Arsdale</u> (now at the Legal Priorities Project) reviewed the United States regulatory landscape for wild animal applications of gene drives and assessed the tractability of influencing these policies.
 - Luke and Simon investigated <u>prairie dogs</u> as another system in which to study the science and politics of wildlife contraception. As part of this effort, they made contact with a Boulder, Colorado city council official in charge of prairie dog management, as well as a Colorado State University researcher who recently completed a field test of prairie dog contraception with promising results; and
 - Simon is surveying the state of wildlife population management technologies and research. This review is aimed at understanding what strategies and population characteristics maximize the expected value of fertility-related interventions, allowing us to make better decisions about what project directions to pursue with future grants and research projects.

Major achievements prior to 2020

- 1. Published our first research agenda (updated in 2020).
- Published white papers on <u>humane invertebrate pest control</u> as a potential near-term intervention, <u>long-term design considerations</u> for future interventions, and <u>biomarkers of aging</u> as a potentially groundbreaking approach to objectively measuring welfare. (The biomarker paper formed the basis of our later collaboration with Dr. Davide Dominoni.)
- Published research notes on managing <u>optimal population density</u>, repurposing the <u>Conservation</u> <u>Evidence Database</u> for welfare, and <u>building models resilient to the extreme uncertainty</u> that characterizes the current state of wild animal welfare science.

Outputs of Program 5: Coalition Strategy

Last updated 15 Jul 2021

Major achievements in the past 18 months

1. WAI-hosted events:

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- Hosted a webinar to share with EA group leaders what we have learned about communicating wild animal welfare concepts accurately and persuasively. Given the positive response, we plan to write up these talking points and distribute them more broadly.
- Held an open forum to discuss what ACE's 2020 evaluation and recommendation of WAI means for wild animal welfare and our organization. Topics included our research and outreach priorities and plans for growth. About a dozen people attended.
- 2. Coordination meetings with other organizations:
 - Met with Ought (<u>ought.org</u>) to discuss forecasting priorities for the wild animal welfare movement and learn how their machine learning tools could supplement those forecasts.
 - Met several times with representatives from Rethink Priorities to coordinate our research and advocacy plans. In at least two instances, WAI played a significant role in influencing Rethink Priorities' decision to take on projects as a result of input shared at these meetings.
 - Met with representatives from Open Philanthropy and Farmed Animal Funders to discuss strategic and operational priorities in the effective animal advocacy field.
- 3. Attendance at other organizations' events:
 - Participated in <u>Effective Altruism Global: Reconnect 2021</u> and met with several interested effective altruists to discuss wild animal welfare-adjacent topics in the context of the work at their institutions and within their careers.
 - Executive Director Michelle Graham spoke at the <u>EA Student Summit 2020</u>. WAI team members met with 47 undergraduates, graduate students, early-career professionals, and movement organizers interested in wild animal welfare. A total of 98 attendees (10.0%) expressed interest in wild animal welfare.
 - Special Projects Advisor Stien van der Ploeg represented WAI at <u>EAGxAsia-Pacific</u> and the Polderdieren Symposium (an academic conference about behavior, ethics, law, and

sentience of wild, rewilded, and farmed animals in the Netherlands) and followed up with attendees interested in wild animal welfare.

Major achievements prior to 2020

- 1. Hosted the first Wild Animal Welfare Summit, bringing together researchers, funders, and organizations working in this field to prioritize and collaborate on shared interests and community goals.
- 2. Hosted a workshop on wild animal welfare at <u>Effective Altruism Global: San Francisco</u>, engaging about two dozen participants in discussions on approaches to interventions and research.

Additionally, Wild Animal Initiative's founding was itself the product of coordination within the wild animal welfare movement. Two earlier groups — Utility Farm and Wild-Animal Suffering Research — merged to become Wild Animal Initiative, combining resources and pivoting to a new focus on academic research.