**Questions Tab- this information will be included in the cover page of the proposal and answered directly within SCORES**

* Proposal Title, Sponsoring Institution, Project Budget
* Technical Summary (2,000-character limit)
* Lay Audience Summary (2,000-character limit)

**People Tab- this information will be included in the cover page of the proposal and answered directly within SCORES**

* Principal Investigator and contact details
* Co-Investigators and contact details
* Authorized institutional signer and contact details

**1. Study Proposal**

* 1. **Executive Summary (300 words max)** *Briefly describe the genomic resources you seek funding for, and how these new resources could be used to benefit a wildlife conservation project.*
  2. **Conservation Need (500 words max)** *Describe the target species and its need for conservation action. Provide a brief history of conservation activities and outcomes associated with the target species. Explain the ultimate goal of collective conservation actions for this species.*
  3. **Genomic Resources (500 words max)** 
     + *Describe the genomic resources being proposed for the target species (justify type and amount of sequencing, number of samples).*
     + *If a reference genome is available, describe the quality of that reference and what it has been used for. If a reference genome is not available, what is the closest extant relative of the target species that has a reference genome?*
     + *Describe the source of biological materials that will be used in creating the genomic resources, including efforts that will be required for sample collection, and/or storage conditions of previously collected samples.*
     + *Provide information on permits that you have acquired for sample collections, if necessary.*
     + *Describe your preferred plan for biobanking sample vouchers.*
     + *Describe your preferred plan for data storage in a publicly accessible databank.*
  4. **Conservation application (300 words max)** *Describe how the genomic resources being sought through this proposal could be applied to a conservation project to benefit the target species. What new information or intelligence will the genomic resources enable for wildlife conservation or management?*
  5. **Transition Plan (250 words max)** *Describe the details of existing or potential conservation activities that could benefit from the proposed Wild Genomes project, including potential partners/organizations and the status of those conservation activities (e.g., Has the project started? Is the project funded? Are those involved interested in making use of genetic insight?).*

**2. Sample Size (no page limit)**

|  |  |
| --- | --- |
| Target Species |  |
| Genome size |  |
| Are you requesting a reference genome? (Y/N) |  |
| Number of whole genomes requested for resequencing (not including reference genome) |  |
| Conservation application | *1-2 sentences* |
| Country of origin of samples |  |
| IUCN status of target species |  |
| Justification of sample size |  |

Biological samples must be collected in a manner consistent with high quality nucleic acid preparation. Proposers may use the rough guidelines in the table below to estimate the type of samples that will be required for creating a reference genome:

|  |  |
| --- | --- |
| Tissue Type  (In order of preference) | Minimum Amount |
| Vertebrates | |
| Blood | 50-100 ml |
| Sperm cells | 5 x 107 - 1 x 10 8 |
| Liver | 1 g |
| Spleen | 1 g |
| Brain | 1 g |
| Heart | 1 g |
| Muscle | 1 g |
| Lung | 1 g |
| Plant tissue |  |
| 1- or 2-leaf seedling | 5 – 10+ g |
| Young leaves or meristems of mature plants | 5 – 10+ g |
| Arthropods |  |
| Embryos | Whole individual |
| Newly hatched larvae | Whole individual |
| Early pupae | Whole individual |
| Adults | Whole individual |
| Marine Animals/Invertebrates | |
| Newly hatched larvae | 200 + mg |
| Sperm | 200 + mg |
| Blood | 200 + mg |
| Muscle | 200 + mg |
| Purified DNA | |
| High mol weight (50+ kbp) | 20+ μg |

**3. Animal Involvement Justification Form (no page limit)**

All studies receiving funding must adhere to the Morris Animal Foundation’s Health Study Policy for Animals Involved in Research, which was written to ensure that every animal involved in a funded health study receives excellent, compassionate care throughout the study. Please review the Health Study Policy prior to filling out this form. [Click here](https://www.morrisanimalfoundation.org/sites/default/files/filesync/Health-Study-Policy.pdf) for the full Health Study Policy.

All studies will be reviewed by the Animal Welfare Advisory Board (AWAB) for adherence to the Health Study Policy. All studies must be approved by the AWAB before funding can be awarded.

**Note: This form must be completed in its entirety, at time of submission. Incomplete forms may result in disqualification of the proposal.**

**SECTION 1**: **This section must be filled out, regardless of animal use (including invertebrates)**

1. Does this study…
   1. Involve live animals? (yes/no) \_\_\_\_\_\_\_
   2. Use archived samples that were originally obtained from live animals? (yes/no)
   3. Use samples that will be obtained prospectively from live animals? (yes/no) \_\_\_\_\_\_\_
   4. Use archived samples that were originally obtained from animals that died from natural causes or were euthanized for clinical reasons prior to sample collection? (yes/no) \_\_\_\_\_\_\_
   5. Use samples that will be obtained prospectively from animals that die from natural causes or are euthanized for clinical reasons prior to sample collection? (yes/no) \_\_\_\_\_\_\_
   6. Use archived samples that were originally obtained from animals that were euthanized for an unrelated study prior to sample collection? (yes/no) \_\_\_\_\_\_\_
   7. Use samples that will be obtained prospectively from animals that will be euthanized for an unrelated study prior to sample collection? (yes/no) \_\_\_\_\_\_\_
   8. Use samples that will be obtained from animals that will be euthanized for the proposed study prior to sample collection? (yes/no) \_\_\_\_\_\_\_
   9. Use immortalized cell lines? (yes/no) \_\_\_\_\_\_\_
   10. Use samples obtained from a third-party vendor (yes/no) \_\_\_\_\_\_\_

**SECTION 2: If you answered yes to any of the above, this section must be filled out in its entirety**

1. Describe, in detail, all animal involvement proposed in this study. This includes all live animal involvement, retrospective live animal involvement for sample collection and prospective live animal involvement for sample collection.
2. If this study involves archived samples describe, in detail, the nature and origin of all proposed archived samples to be used. This includes primary cell and immortalized cell lines.
3. List the [USDA category](https://www.morrisanimalfoundation.org/sites/default/files/files/2018-12/USDA-Pain-and-Distress-Categories.pdf) (B, C, D, E) for pain and distress. This includes the USDA category pertaining to previous animal involvement, which yielded archived sample collection:

**Attention: “N/A” will not suffice as a selection.**

1. State the status of your IACUC approval, or equivalent in the country in which the research is to be conducted. If approval is pending or exempt, please explain.

Note: The entire IACUC/equivalent protocol and approval letter will be required before funding can be awarded. If biological or archived samples will be utilized, IACUC/equivalent approval for original sample collection, or a letter stating that the study was exempt, will also be required.

1. Describe how all animals included in the study will be acquired (e.g., institutional “herds” or “colonies,” etc.). This includes describing how all animals were acquired for retrospective samples and/or will be acquired for prospective sample collection.
2. Describe how many animals will be included in this study. If more than one species, please explain.
3. Summarize the numerical justification of animals included in this study.
4. Describe how all procedures with animals will be conducted with appropriate consideration of animal welfare, including the use of anesthesia or analgesia, humane handling techniques and best veterinary practices. This includes procedures with animals which occurred retrospectively during sample collection.
5. Describe the environment and housing conditions (quality of life) in which animals will live throughout the duration of the study (species-appropriate exercise, enrichment, socialization, veterinary care, etc.).
6. Describe what will happen to all animals upon completion of the proposed study. This includes animals that were retrospectively utilized during sample collection.
7. Does this study induce or have the potential to induce disease, injury, pain, or distress in animals (yes/no)?

Does this study involve samples that were originally acquired as part of a study that induced or had the potential to induce disease, injury, pain, or distress in animals (yes/no)?

**If yes to either above,**

1. Defend the necessity of the aspects of the experimental design that may induce disease, injury, pain, or distress.
2. Explain how pain and/or distress will be (or was) controlled.
3. Justify that no alternative can be used to accomplish study objectives.
4. Weigh the potential benefits of this study (i.e., the fact that the disease/condition to be studied is of such significance for improving the health of the species) against the potential harms to the animals in this study.
5. Is euthanasia a possible outcome in this proposed study (yes/no)?

If this study involves analysis of archived samples, was euthanasia an outcome when samples were originally acquired (yes/no)?

**If yes to either above,**

1. State and justify the total number of animals that will be or were euthanized.
2. Describe the method of euthanasia.
3. Provide justification that no alternatives can be used to accomplish study goal(s).
4. Weigh the potential benefits of this study (i.e., the fact that the disease/condition to be studied is of such significance for improving the health of the species) against the need for a terminal endpoint in this study.
5. Provide detailed objective criteria for determining when euthanasia is appropriate or necessary.

**4. Biosecurity Measures- applicable to the biosecurity of people and animals (no page limit)**

**5. Cited References (1-page limit)**

**6. Budget (1-page limit) Utilize budget spreadsheet (link below) and upload separately into SCORES. Include annual subtotals, calculated indirect costs and grand totals in all applicable fields. All funds must be U.S. dollars.**

[**Link to Budget Spreadsheet**](https://www.morrisanimalfoundation.org/sites/default/files/filesync/AIBS-Budget-Template.xlsx)

**7. Budget Justification and Timeline Summary (2-page limit)**

[**Link to Budget Justification Sample**](https://www.morrisanimalfoundation.org/sites/default/files/filesync/Budget-Justification-Template.docx)

**Project Schedule**

|  |  |
| --- | --- |
| **Objective or Task** | **\*Timing (grant month)** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**\*Month 1 = first month following contract signature**

**8. Biographical Data –please include PI and Co-Investigators professional URL link (example: LinkedIn, Research Gate)**

**9. Letters of Support and Permits**