

Species Reintroduction Solves Environmental Problems

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Abstract

In this paper, I argue that species reintroduction should be considered to help solve environmental problems. Species reintroduction is the return of species back to their natural habitat. I support my position on species reintroduction with the following arguments. First, I argue that species reintroduction can restore the natural food chain. Second, species reintroduction can prevent the long-term disruption of the ecosystem. Finally, species reintroduction can repair the damage caused by agricultural and industrial human activities. I also take into consideration the opposing side of species reintroduction. These opposing positions argue that species reintroduction may cause damage to newly formed environmental links, unpredictable consequences to the environment, and disruption to people's agricultural businesses. Species reintroduction is an essential method since it creates a healthy and balanced ecosystem. As such, we can ensure the quality of human life and reduce many environmental problems that occur because of neglect to the environment.

Keywords: species reintroduction, social conflicts, habitat restoration, wildlife restoration, ecosystem

Species Reintroduction Solves Environmental Problems

In this paper, I argue that species reintroduction should be considered to help solve environmental problems. Species reintroduction is the return of species back to their natural habitat. Reintroduction is important because it can restore the ecological balance by reversing the effects of environmental damage that were caused by human activities. Thus, the process enables the ecosystem to restore and enhance its current state (Guesset, 2012).

I support my position on species reintroduction with the following reasons. First, I argue that species reintroduction can restore the natural food chain. A reintroduction can help many living organisms retain their natural food in their habitat, allowing balance in the ecosystem (Hale & Koprowski, 2018). Second, species reintroduction can prevent the long-term disruption of the ecosystem. Specifically, when species are reintroduced into a particular place, they begin the process of repairing and balancing the ecosystem, leading to the prevention of environmental damage (Ripple & Beschta, 2011). Finally, species reintroduction can repair the damage caused by agricultural and industrial human activities. For instance, the keystone species restoration had a very positive outcome on the environment for those affected areas (Palazón, 2017).

I also take into consideration the opposing side of species reintroduction. First, species reintroduction may cause damage to newly formed environmental links (Derham et al., 2018). Second, the method can cause unpredictable consequences to the environment (Byrne & Pitchford, 2016). Finally, reintroduction can disrupt people's agricultural businesses (Coz & Young, 2020). While these claims have merit, they can be refuted by providing evidence of a study that suggests, for instance, the positive impact of reintroduction in areas where it was implemented (e.g., the keystone species reintroduction). Therefore, the method is a very low-cost alternative for solving substantial environmental damage.

This paper is important because it highlights the significance of creating a healthy and balanced ecosystem. As such, we can ensure the quality of human lives and reduce many environmental problems that have occurred because of neglect of the environment. Human

behavior leads to environmental problems such as climate change and air pollution.

Unfortunately, the modern world structure of living promotes these activities. I conclude my paper by suggesting that such problems can be resolved if people participate in active campaigns to raise awareness of such environmental problems and that people maintain a careful observation of relevant environments.

Species Reintroduction Can Disrupt the Environment and Businesses

Species reintroduction is the return of species back to their natural habitat with the goal of restoring food chains and ecological balance (Guesset, 2012). Despite the merit of such goals, many critics argue that species reintroduction can cause more harm than good to the environment (e.g., Coz & Young, 2020; Nogués-Bravo et al. 2016). Although some may argue that species reintroduction is a highly controversial method, it has shown its viability from its success in many experiments where the process has effectively restored or even improved the ecosystem.

The Damage to the Newly Forming Environment

Some critics argue that species reintroduction can disrupt the ecological balance of the habitats in which it is used (Alston et al., 2019). For instance, when species are reintroduced in a specific area, they start eating resources that other animals find critical to their existence. When this happens, the animals begin to search for other food alternatives, and eventually, the animals can die or start to migrate to other places in search of food and shelter. In addition, the extinction of species in a habitat can result in drastic changes in the area. This extinction of species can eventually lead to the disruption of more than one species.

As a consequence of the problem of species reintroduction, many species can go extinct, and the ecosystem can be disrupted. Alston et al. (2019) indicate that species reintroduction can lead to devastating consequences to the ecosystem. Instead of improving the ecosystem as a whole, the authors argue that it can lead to a large-scale condition of disorder and chaos by resulting in a significant disturbance to the environment. For instance, the reintroduction of wolves in Yellowstone was indirectly caused by a severe long-term

drought that disrupted the area. This drought occurred because of the migration of elk to other regions since wolves feed on elk. The migration of elk caused changes in the ecological balance of the region that caused severe drought (Middleton et al., 2013). The consequences of the result can eventually lead to the extinction of species. A newly forming environment is very much likely to have different conditions that have a drastic difference from the previous environment. Thus, the extinction of one species can disrupt many species and organisms in the environment that can be tragic to the ecosystem.

The problem with the critics' argument is that it assumes that species reintroduction experts do not consider the long-term effect of such actions. However, species reintroduction has beneficial results to the environment since it involves many complex and detailed calculations of the potential species reintroduction impacts. For instance, many large-scale models exist of the tree reintroduction process that allows for a better understanding of the possible impacts of the process. Thus, these models will enable experts of species reintroduction to predict potential problems that may be faced while undergoing the process (Gustafson et al., 2018). As such, the issues that occur as a result of this matter are only valid regarding unprofessional methods of species reintroduction.

There are some findings that indicate that careful observation is the most critical part of the process of species reintroduction. According to Lamothe et al. (2019), experts in the field always consider the possibilities and consequences of what could happen from various scenarios. Consequently, the author suggests that there are many beneficial outcomes from the process. For instance, before experts reintroduce species to a particular habitat, they must undergo a process of complex calculation to guarantee the safety and success of the process. Therefore, the reintroduction process can create more benefits to the environment, and it takes into consideration the safety of the animals and plants in the area.

Disruption of Businesses

Many people argue that they are against the species reintroduction method since the process could disrupt businesses. According to Coz and Young (2020), the process has

political issues as species reintroduction can negatively impact the public perception of favorable environmentalist policies. In addition, there have been some cases of reintroducing certain species that have led to political conflicts, like the case of species reintroduction of beavers in Scotland. For instance, the authors state that "Conservation conflicts depend not only on environmental and economic but also on social, cultural, and conceptual factors" (p. 408). The authors explain that the local farmers in the area were concerned that the beavers could damage their agricultural businesses and the artificial habitats created by humans. Likewise, several issues indicate that species reintroduction often causes political conflicts. These issues result from local people's fear of the habitats' safety around the area (Watkins, 2021).

The process of species reintroduction threatens people who own agricultural businesses. This threat comes from the potential damage that may affect them. Several studies confirm the negative impact of species reintroduction on agricultural businesses. These studies conduct research on how the process has negatively affected people's businesses. As such, people responded to the reintroduction policy as a threat to their business, resulting in many individuals not supporting the implementation of the process (Coz & Young, 2020).

The critic's conflict and the evidence provided indicate how the negative impacts of species reintroduction can devastate the pro-environmental policies. Many individuals against the reintroduction process may vote for parties who do not support it to secure their businesses. Additionally, these issues can disrupt the pro-environment agenda in any society. Some critics believe that the species reintroduction process can create devastating impacts from a political perspective, even if it is beneficial to the environment.

Overall, the critics' arguments are focused on cases that are viewed as bad species reintroduction policies. These critics' arguments concentrate on the cases that failed in producing a positive result of species reintroduction. However, some studies contradict the arguments presented by the critics. For instance, one study indicates that the proper species

reintroduction method must involve proper message framing. As such, there is always a team dedicated to species reintroduction that highlights the benefits of the process for the local population. In addition, message framing in Colorado has been shown to be successful in implementing the reintroduction (Niemiec, 2020). Furthermore, Watkins et al. (2021) indicate that the maintenance of positive assurance politics often works. Therefore, the arguments presented show how the critic's problem has a solution that could solve such issues regarding the process. These solutions include educating and resolving their concern regarding the process.

The Unexpected Behavior of the Species Reintroduction Process

Species reintroduction can have a negative impact in the form of habitat disruption. This disruption can create unexpected behavior that can change the ecosystem. Some studies, such as Ferretti et al. (2015) and Nogués-Bravo et al. (2016), suggest that when reintroduction occurs in a specific region, it results in many unpredictable outcomes in terms of food distribution and nutrients in that particular region. According to Ferretti et al., when red deer were reintroduced in a specific region in Italy, they affected the other species and habitat negatively. To illustrate, Apennine chamois are the original inhabitants of the region. However, when red deer were reintroduced, they unexpectedly affected Apennine chamois negatively for the following reasons. First, shrubs are the main source of food for red deer and chamois, and since red deer were much larger than chamois, they consumed more shrubs. As a consequence, red deer decreased the food source for chamois. Second, since red deer limited the food availability between the two species, female chamois suffered from a lack of nutrients, making them unable to feed their young and cause a high mortality rate in the winter to their young. Therefore, the competition between red deer and chamois has resulted in the decline of the chamois population and their food source in the region.

There have been other unexpected consequences of species reintroduction that have affected the ecosystem as a whole. However, these consequences only occur in unprofessional methods of species reintroduction by untrained individuals. The favorable

way to use the process of reintroduction is by calculating and observing the environment rigorously. For instance, Malone et al. (2016) explain how modern methods are capable of large-scale calculation. Malone et al. suggest that it is possible to create a complex model regarding the process of reintroduction. These models are capable of predicting major potential errors and are safe. Similarly, Byrne and Pitchford (2016) indicate the importance of having simulation regarding the process of reintroduction. This simulation will allow for a good prediction of extinction and restoration cycles in an ecosystem. In addition, if a clear prediction is not possible, experts can monitor the area and observe the changes in the environment and resolve them in a sophisticated manner through the abortion of experiments (Lemothe et al., 2019). As such, these methods provide sufficient prediction of possible issues that the ecosystem may encounter and ways to resolve any issue that could affect the ecosystem.

Modern methods are a good tool for predicting the state of an ecosystem. These tools suggest that the process of species reintroduction is highly predictable and safe for the environment. As such, complex models and observations are the best tools for predicting a safe reintroduction process for the environment and the original species inhabiting the region. Consequently, the reintroduction of species is very much likely to provide positive outcomes to the environment rather than unexpected adverse outcomes.

Benefits of Species Reintroduction

Some people argue that species reintroduction is viewed as a highly controversial process. This controversy is a result of some unprofessional attempts at performing this process. However, species reintroduction should be considered to help solve environmental problems because it can help restore the natural food chains, prevent the long-term disruption of the ecosystems, and repair the damage caused by agricultural and industrial human activities (Hale & Koprowski, 2018; Robinson et al., 2019; Sheikholeslami et al., 2020). Overall, species reintroduction is a process that has a tremendous positive impact on the environment. This process allows for a balanced ecosystem for living organisms.

Restoration of the Natural Food Chain

Species reintroduction can positively impact natural food chains (Hale & Koprowski, 2018). The reintroduction process can restore and stabilize the ecosystem. Once the ecosystem is restored, it reconditions the natural food chain and creates more functional habitats for species. There are many examples of successful species reintroduction cases that result in positive outcomes. According to Hale and Koprowski (2018), their comprehensive range review of the species reintroduction process positively benefits the environments. The process of species reintroduction help restores the ecosystem in certain regions of implementation.

The process of species reintroduction results in stabilizing the ecosystem condition. As discussed in Palázon (2017), the restoration of brown bears in the Pyrenees has resulted in tremendous success since it started to disrupt minor predators that are more aggressive. These minor predators compromise the food balance in the entire ecosystem. In addition, the reintroduction of bears prevented the gradual decline of the species that are reliant on a particular plant or animal since they can regulate the ecosystem through prey control. Therefore, species reintroduction can create a tremendous healing chain reaction to the ecosystem, resulting in the gradual restoration of the entire ecosystem.

Many studies demonstrate how species reintroduction is beneficial and produce a positive outcome in the areas where it was implemented. For instance, the reintroduction of Hill's thistle to its natural habitat resulted in positive impacts in the area. Hill's thistle acted as a powerful resource of food for other species of animals. This plant prevented the disruption of other animals reliant on it (Sheikholeslami et al., 2018).

Other cases of species' reintroduction verify that the process has a high success rate. Lamothe et al. (2019) indicate a case of success of the species reintroduction process in water streams. In particular, the process of species reintroduction is complex and requires constant observation, which eventually led to an improved state of the water stream environment.

Therefore, creating a thriving environment for many species and a properly balanced food chain. This, in turn, helps restore the ecosystem.

Overall, there is much evidence suggesting that the process of species reintroduction effectively restores the food chain in the ecosystem. Therefore, when there is an invasive utilization of species reintroduction in a specific area, the more likely the process restores the food chain in the ecosystem, resulting in a tremendous improvement of the food chain. These improvements prevent the destruction of the ecological system in a particular region and ensure the long-term existence of the organism. As a result, the ecosystem restores, stabilizes its functions, and creates a balanced region for many species to prosper.

Prevent the Long-Term Disruption of the Ecosystems

Species reintroduction can impact the ecosystem positively in many ways. One of the impacts it creates is preventing the long-term disruption of the ecosystem. The prevention is handled by restoring species that form the crux of food chains (Hale & Koprowski, 2018). The most devastating impact of species dying out is the massive destabilization that is caused by overexploitation. Unfortunately, the disruption of food often leads to the collapse of the ecosystem, which can affect many species, killing a large number of animals and plants. To illustrate, the extermination of the wolves that happened in Yellowstone park before their reintroduction has resulted in a massive proliferation of coyotes. Coyotes were much more aggressive than the preceding apex predators and created an imbalance in the area (Alston et al., 2019; Ripple & Beschta, 2012). Accordingly, the problem of species dying out lies in the possibility of a chain reaction that could affect dozens if not hundreds of species. Thus, species reintroduction can solve many issues regarding the overexploiting of species in the area where it was affected.

Current data suggest that the rapid investments in species reintroduction can easily counterbalance species' overexploitation. The reintroduction of species in the affected areas can eventually lead to the prevention of the long-term disruption of the ecosystem. For instance, species reintroduction has a great advantage in stabilizing the ecosystem. Hale and

Koprowski (2018) indicate that beaver reintroduction has resulted in the resumption of "Several keystone functions, such as influencing hydrological processes and space use of bats" (p. 447). The reintroduction of wolves can decrease the population of coyotes in the area and the subsequent increase of the non-predatory species (Alston et al., 2019).

The destabilization of the environment only occurs for a short period of time, and the ecosystem starts to adjust and enhance itself. According to Alston et al. (2019) indicates that species reintroduction is a process that typically results in a short-term destabilization but ultimately results in the beneficial improvement of the ecosystem. As such, the study suggests how species reintroduction has a significant impact on the ecosystem in the long term. Supporters of species reintroduction agree that it can prevent long-term disruption of the ecosystem. Importantly, some critics agree that species reintroduction of endangered species can eventually result in reintegrating the ecosystem, significantly improving their overall level of stability. For instance, the return of wolves in Yellowstone has reduced the population of elks and caused a lower water table. However, Alston et al., as well as Ripple and Beschta (2012), observed that the reintroduction created changes in the nutrient availability in the area that has led to the stable state of beaver-free areas. This reintroduction created more resources for animals to survive, and it also stabilized the ecosystem from its previous state.

Overall, species reintroduction is a process that reintegrates the ecosystem beneficially. The process can stabilize the ecosystem as a whole and prevent disruption in the long term. The stabilization of the environment can eventually lead to solving many environmental problems that are affecting the ecosystem, and these problems include overexploitation and destabilization. Thus, the process of reintroduction has generated a solution to repair and restore the environment naturally and efficiently, creating a stable and well-balanced ecosystem.

Repair the Damage Caused by Human Activities

Species reintroduction can help restore the tremendous damage caused by human agricultural and industrial activities (Hale & Koprowski, 2018; Robinson et al., 2019; Sheikholeslami et al., 2020). One of the significant impacts of human activities is the disruption of environmental habitats. This disruption has resulted in the death of many species in that area. Other factors that disrupt the environment are pollutants like carbon dioxide that arise from factories. Carbon dioxide causes acidification that can lead to the loss of the animals in a particular habitat. For instance, acidification appears to be present in freshwater in Norway. The acidification of the water has resulted in many fish species being lost because of the decrease of pH level of water, ultimately causing damage to the environment (Muniz, 2011). In addition, many endangered species have disappeared from their original area because of the harmful human activities that took place near their habitat (Sheikholeslami et al., 2020). These activities have resulted in significant damage to the environment and the species that inhabit the areas. Thus, the result is the loss of species and also their corresponding habitats.

The loss of species and their habitat can create drastic changes in the ecosystem. In order to restore and repair the damage towards the ecosystem, experts suggest that species reintroduction has created a tremendous effect in positively restoring the environment. According to Hale and Koprowski (2018), most studies have confirmed the positive impact of species reintroduction regarding restoring the environment to its original state. This restoration has had a tremendous impact on the ecosystem since it naturally repaired, balanced, and stabilized its state. This impact on the ecosystem has led to the restoration of species and reparation of the environment in the area that was affected by human activities.

Many cases confirm the reparation of species and habitat using the species reintroduction method. The process of species reintroduction has restored many endangered species safely in the environment. According to Sheikholeslami et al. (2020), the reintroduction of Hill's thistle is an example of a successful species restoration. The reintroduction of the plant resulted in the restoration of natural processes in the ecosystem in

terms of stability. The process also helped to reverse the damage towards the ecosystem and endangered species. As such, reintroduction has proven to be highly efficient since the process is easy to set up in the environment's current condition. Another example that indicates the success of the process in restoring the habitat is reported by Robinsons et al. (2019). The authors' study suggests how the reintroduction of quolls that are considered an endangered species has resulted in success. This example indicates how the species reintroduction process is capable of restoring species to the pre-transformation state of a particular habitat. This process eventually led to the restoration and reparation of the ecosystem.

The successful cases of the species reintroduction method have led to the restoration and reparation of the ecosystem. In addition, species reintroduction can also prevent the potency of invasive species by biological control programs (Derham et al., 2018). As a consequence of species reintroduction, the data gathered from the studies suggest the positive impact of species reintroduction in regard to repairing the damage caused by human activities towards the environment. As such, the restoration of species has improved the overall state of the ecosystem. The reintroduction of species also shows the capabilities the process could create towards the ecosystem positively and naturally.

Conclusion

In our modern world, we have to think of modern solutions to environmental problems. These solutions should be sophisticated and simple so that we can generate the best outcome regarding the environment. One of the best ways to solve such issues is to promote species reintroduction as a solution to environmental problems. Such problems require an approach that will enhance the ecological state and restore balance to the ecosystem.

Some people argue that species reintroduction is controversial, and it can create more damage to the environment. First, they say that species reintroduction may cause damage to newly formed environmental links. They argue by stating the study conducted in Yellowstone where a population of wolves was reintroduced to the area. Consequently, the reintroduction

led to the extinction of some species. Second, some people argue that the process of reintroduction could disrupt businesses. They explain that a case study of beavers in Scotland showcases many people losing and damaging their businesses. This disruption has resulted in political conflicts since farmers are concerned about the damage to their business. Third, some critics highlight the unexpected behavior of the species reintroduction process. Their argument presents a case about how coyotes proliferated once wolves disappeared from the region. As a result, when wolves are reintroduced, they can create unexpected impacts on the environment. However, the arguments presented by the critics do not consider the long-term beneficial impacts of the reintroduction and are only focused on the short-term side effects.

The method of reintroduction visibly results in a long-term positive effect on the environment. The process also includes a sophisticated and effective solution for environmental problems. First, the reintroduction can help restore the natural food chains. Evidence gathered from many case studies indicates how the reintroduction restored the food chain that, in turn, created a balanced ecosystem. Second, species reintroduction can prevent the long-term disruption of ecosystems. Several studies suggest that the process has integrated the ecosystem and improved its overall stability. Third, the process repairs the damage caused by agricultural and industrial human activities. The case studies indicate the positive effect of reintroduction in an area and how the reintroduction reversed the damage that was caused to the environment. As such, the improvement of the environment demonstrates the positive impacts of species reintroduction in solving problems in the areas affected previously.

Species reintroduction has clearly shown its credibility in solving many issues in the affected environment. The success of species reintroduction has to do with a number of factors, such as the careful observation of the area, the use of complex models to guarantee the safety of the organisms in the environment, and the vivid campaigns that promote the reintroduction process. The process has managed to validate itself in many case studies. This validation arises from the success of reintroduction in specific areas. Furthermore, it is

essential to choose practical and natural methods to reverse the environment's issues. Species reintroduction has all the components of a safe, natural, and effective process in solving environmental problems. Therefore, the process should be promoted as one of the best tools people have to improve the environmental situation in our modern world.

References

- Alston, J., Maitland, B., Brito, B., Esmaceli, S., Ford, A., Hays, B., Jesmer B., Molina, F., Goheen, J. (2019). Reciprocity in restoration ecology: When might large carnivore reintroduction restore ecosystems? *Biological Conservation*, 234, 82-89.
doi:10.1016/j.biocon.2019.03.021
- Byrne, J., & Pitchford, J. (2016). Species reintroduction and community-level consequences in dynamically simulated ecosystems. *Bioscience Horizons*, 9.
<https://doi.org/10.1093/biohorizons/hzw009>
- Coz, D. M., & Young, J. C. (2020). Conflicts over wildlife conservation: Learning from the reintroduction of beavers in Scotland. *People and Nature*, 2(2), 406-419.
doi:10.1002/pan3.10076
- Ferretti, F., Corazza, M., Campana, I., Pietrocini, V., Brunetti, C., Scornavacca, D., & Lovari, S. (2015). Competition between wild herbivores: reintroduced red deer and Apennine chamois. *Behavioral Ecology*, 26(2), 550-559. <https://doi.org/10.1093/beheco/aru226>
- Guesset, M. (2012). *Species reintroduction*. Research Gate. Retrieved from https://www.researchgate.net/publication/273575523_Species_reintroduction.
- Gustafson, E. J., Sturtevant, B. R., Bruijn, A. M., Lichti, N., Jacobs, D. F., Kashian, D. M., Miranda, B. R., Townsend, P. A. (2018). Forecasting effects of tree species reintroduction strategies on carbon stocks in a future without historical analog. *Global Change Biology*, 24(11), 5500-5517. doi:10.1111/gcb.14397
- Hale, S. L., & Koprowski, J. L. (2018). Ecosystem-level effects of keystone species reintroduction: A literature review. *Restoration Ecology*, 26(3), 439-445.
doi:10.1111/rec.12684

- Lamothe, K. A., Dextrase, A. J., & Drake, D. A. (2019). Characterizing species co-occurrence patterns of imperfectly detected stream fishes to inform species reintroduction efforts. *Conservation Biology*, *33*(6), 1392-1403.
doi:10.1111/cobi.13320
- Middleton, A., Kauffman, M., McWhirter, D., Cook, J., Cook, R., & Nelson, A. et al. (2013). Animal migration amid shifting patterns of phenology and predation: lessons from a Yellowstone elk herd. *Ecology*, *94*(6), 1245-1256. <https://doi.org/10.1890/11-2298.1>
- Muniz, I. (1990). Freshwater acidification: its effects on species and communities of freshwater microbes, plants and animals. *Proceedings Of The Royal Society Of Edinburgh. Section B. Biological Sciences*, *97*, 227-254.
<https://doi.org/10.1017/s0269727000005364>
- Niemiec, R. M., Sekar, S., Gonzalez, M., & Mertens, A. (2020). The influence of message framing on public beliefs and behaviors related to species reintroduction. *Biological Conservation*, *248*, 108522. doi:10.1016/j.biocon.2020.108522
- Nogués-Bravo, D., Simberloff, D., Rahbek, C., & Sanders, N. (2016). Rewilding is the new Pandora's box in conservation. *Current Biology*, *26*(3), R87-R91.
<https://doi.org/10.1016/j.cub.2015.12.044>
- Palazon, S. (2017). The importance of reintroducing large carnivores: The brown bear in the Pyrenees. *High Mountain Conservation In A Changing World*, 231-249.
https://doi.org/10.1007/978-3-319-55982-7_10
- Ripple, W., & Beschta, R. (2012). Trophic cascades in Yellowstone: The first 15 years after wolf reintroduction. *Biological Conservation*, *145*(1), 205-213.
<https://doi.org/10.1016/j.biocon.2011.11.005>
- Robinson, N. M., Dexter, N., Brewster, R., Maple, D., Macgregor, C., Rose, K., Hall, J., Lindenmayer, D. B. (2019). Be nimble with threat mitigation: Lessons learned from the reintroduction of an endangered species. *Restoration Ecology*, *28*(1), 29-38.
doi:10.1111/rec.13028

- Sheikholeslami, B., Shukla, M., Turi, C., Harpur, C., & Saxena, P. K. (2020). Saving threatened plant species: Reintroduction of Hill's thistle (*Cirsium hillii*. (Canby) Fernald) to its natural habitat. *Plos One*, *15*(4). doi:10.1371/journal.pone.0231741
- Watkins, C. E., Poudyal, N. C., Jones, R. E., Muller, L. I., & Hodges, D. G. (2021). Risk perception, trust and support for wildlife reintroduction and conservation. *Environmental Conservation*, 1-9. doi:10.1017/s0376892921000011