Conservation Campaign: Irbis Mongolia Center

Kayley Bateman, Ryan Pennesi, Linnea Wallace, Miranda Wanninger, & Bethany Wilson

Bio 641- G

Miami University, Oxford OH

Abstract

Irbis Mongolia Center (IMC), a Project Dragonfly partner, is an organization dedicated to the research and conservation of Mongolian species with a specific focus on snow leopards, Pallas' cats, and Przewalski's horses. The main priorities outlined by IMC are to help local communities by providing a central administration to promote wildlife conservation, monitor wildlife populations where local communities live, share scientific research with local communities and policymakers, allocate funding for their research, and help local communities find and use outside funding to assist the conservation of endangered species. To meet many of IMC's priorities, we elected to create a website and the framework for creating official social media accounts on Facebook and Instagram. We included a how-to guide for setting up these accounts as well as sample posts using Canva.com. Through this campaign, we hope to support the connection between the IMC and local Mongolians, as well as the online global community. We are dedicated to providing the structure for these internet resources, which once implemented, will support the mission of IMC and the conservation of endangered species.

Keywords: social media, Mongolia, snow leopards

3

Conservation Campaign: Irbis Mongolia Center

The Irbis Mongolia Center (IMC) was founded in 2001 and is directed by Project Dragonfly's partner, Dr. Munkhtsog. The IMC focuses on several wildlife conservation projects and works closely with local communities in Mongolia. The main priorities outlined by IMC are to help local communities by providing a central administration to promote wildlife conservation, monitor wildlife populations where local communities live, share scientific research with local communities and policymakers, allocate funding for their research, and help local communities find and use outside funding to assist the conservation of endangered species (Dragonfly Materials, 2020). In our preliminary research, we found that the IMC does not have a website or an official social media presence, although Dr. Munkhtsog has a personal Facebook page that shares some posts about his work. The lack of social media or a website makes it difficult to find basic information about the IMC's mission and conservation work which felt like a missed opportunity for the organization. The internet is a powerful tool and can help promote the mission of nonprofit organizations (Waters et al., 2009). The creation of a website and official social media accounts will not only make information about the IMC more accessible to a wider audience but has the potential to increase research funding through donations.

The snow leopard (*Panthera uncia*), also known as irbis in Mongolian, is an important umbrella species in Mongolia. Conservation actions toward this species help preserve several other species that IMC works to protect, including the Pallas's cat (*Otocolobus manul*) and Przewalski's horse (*Equus ferus przewalskii*) (Munkhtsog et al., 2016). Playing a major role in the conservation of Mongolian wildlife is the local community. Of the 2.4 million people living in Mongolia, 34% of the population relies on mobile pastoralism as their major livelihood (Upton, 2010). Unfortunately, livestock depredation by wildlife is a major source of conflict for many pastoralists across Asia (Jackson & Wangchuk, 2001). Besides snow leopards, loss of livestock occurs as a result of other local carnivores such as wolves (*Canis lupus*), dhole (*Cuon alpinus*), and lynx (*Lynx lynx*). Since declines caused by carnivores is a major financial loss to these

4

families, retaliation against carnivores, particularly snow leopards is high (Mishra et al., 2003). However, it has been demonstrated that conservationists that form partnerships with the community help reduce retaliatory killings. These partnerships facilitate wildlife education, income incentives, and increase local carnivore awareness (Mishra et al., 2003).

Another animal sharing this unique landscape is the Pallas' cat, or as known in Mongolia, the manul. This elusive, small cat is threatened due to habitat fragmentation, hunting, prey depletion due to vermin control, and direct poisoning (Munkhtsog, Ross & Brown, 2004). Due to increases in both human and livestock numbers, the most detrimental threat Pallas' cats face is habitat degradation and fragmentation. Second to this issue is the threat of poisoning and prey base loss due to the implementation of rodent programs (Ross et al., 2016).

The Przewalski's horse, or tahki, was previously listed as Extinct in the wild, but due to captive breeding and reintroduction efforts, a wild population has been reintroduced to Mongolia. While many threats led to their original extinction in the wild, today they are at risk due to small population size, hybridization and competition with domestic horses (*Equus ferus caballus*), disease transmission, and in some places, illegal mining. Due to the pastoralist lifestyle, domestic horses that belong to these families frequently move in and out of protected areas (Tarav et al., 2017). This allows the opportunity for disease transmission (Tarav et al., 2017), as well as hybridization (Kaczensky et al., 2007).

The nature of the conservation issues surrounding snow leopards, Pallas' cats, and Przewalski's horses are highly dependent on the actions and awareness of local communities. In order to connect these communities to the conservation issues at hand, as well as increase global awareness, we believe that the IMC can benefit from a stronger internet presence specifically through the development of a website and social media accounts. With social media, organizations can control their distribution of messaging. The account holder can post about their causes, and include eye-catching pictures and videos. Through these posts, the organization's supporters can comment

and establish a discussion (Waters et al., 2009). Additionally, social media provides insight into the public perception of wildlife issues. These web-based platforms can be used as a substitute for traditional methods of gaining information such as surveys or polls (Sullivan Robinson & Littnan, 2019).

While we believe it is critical for IMC to share information about local conservation issues, a web-based presence will also promote other aspects of IMC's mission. Public support is essential for creating policy changes and social media is a way to call for action (Wu et al., 2018). Mongolia is a large country with relatively small population size; it is the least densely populated nation in the world with roughly 5 people per square mile (World Population Review, 2020) and the internet can provide connectivity to even the most isolated communities (Lan, Lan, & Tserendonog, 2011). Through the development of a website and social media accounts, we are hoping to connect the IMC to communities throughout Mongolia as well as expand their work to a global audience.

We hope the IMC will expand upon its current partnerships as well as produce new partnerships. We also believe that the IMC can increase their audience by using their social media platforms to link to global awareness events such as World Snow Leopard Day (October 23rd, 2020) and International Pallas Cat Day (April 23, 2020). Events like these can help develop an online community and generate potential donors (Waters et al., 2009). Through this campaign, we hope to support the connection between the IMC, local Mongolians, as well as the online global community. We are dedicated to providing the structure for these internet resources, which once implemented, will support the mission of IMC and the conservation of endangered species.

Methods

To initiate a successful website and social media presence, our team first researched the internet presence of other conservation-related groups. We modeled both our website and social media posts on the sites of similar conservation

6

organizations such as Cheetah Conservation Fund, Snow Leopard Conservancy, Snow Leopard Trust, Panthera, and Painted Dog Conservancy. By modeling the content and features of these conservation organizations, we hope to garner a similar number of followers and engagement. Under the advice of the course instructor, we chose to use Google Sites to develop our website. This application allows multiple users to make content and edit the site as a shared document. For social media, we created an instagram account as well as a how-to guide and created sample content using canva.com (Appendix I). At the end of the course we will give the credentials for the Instagram account to IMC for them to take over the site if they wish; the account is currently set to private. These posts can then be copied and pasted onto an official Facebook or Instagram site or be used on the website. IMC has hosted students from Project Dragonfly's Earth Expeditions courses for many years. We believe that IMC can work with Project Dragonfly to have EE students contribute content to the website or social media account. In fact, many nonprofits use interns and volunteers to help manage their social media websites (Waters et al., 2009).

Through the creation of a website, we plan to support the priorities of the IMC. Drafted in our prototype, we included information such as IMC's mission statement and biographies of the staff members. In order to promote IMC's conservation initiatives, we created informational posts about their three keystone research species: snow leopards, Pallas' cats, and Przewalski horses as well as links to Dr. Munkhtsog's publications. These posts can help develop a local and global understanding of the conservation issues related to these species. In a study by Wu et al. (2018), the addition of pictures of an animal increased readership while posts with a greater word count reduced readership; therefore adding pictures to posts and being concise with information is essential to engage people. We sought out photographers who would be willing to share their work on the IMC website and utilized their photographs for the website and Canva posts. When researching the websites of other conservation organizations, a "donate" button was very prominently displayed on the homepage in addition to a page offering a variety of donation options. Finding future sources for funding is an important aspect of

many organizations and we felt that incorporating a link to donate money on the website would provide a way for people to support IMC.

We realize that language can be a barrier. The challenge for IMC will be to reach their local community, which primarily speaks Mongolian as well as a global audience. According to Hayes (2017) at World Atlas, English is replacing Russian as the most common foreign language to be spoken in Mongolia. By creating our website in English the IMC will be able to reach a wider audience; once the IMC takes over ownership of the website they will be able to add information in Mongolian as well. The website, as well as social media posts, can be posted in two languages which have been successfully done by other organizations such as the Lao Conservation Trust for Wildlife and the Crocodile Research Coalition.

Results

We expect to measure the impact of our project in a variety of ways. Our website and Facebook landing pages will primarily target communities in Mongolia and the United States. In order to determine the overall success of the website, once it goes live, we will measure five different metrics including the number of visitors and their source, bounce rate, average time on the page, click-through rate, and conversion rate. These metrics as outlined in research by Alsghaier et al. (2017) are listed as not only the most common metrics but the most important for successful businesses to use. The five metrics are defined below.

- The number of visitors and their source: How many visitors visit your website
 during a period of time defined by the team's objectives and key results as well
 as where they come from. Do visitors find the site from partner organizations,
 web searches, etc. The visitor source can be determined by simple visitor
 surveys or questionnaires.
- Bounce rate: The percentage of visitors that only visit one tab of your website before leaving.

- Average time on the page: How long does a visitor spend on each page on average? This metric can gauge success based on objectives and key results set by the team.
- Click-through rate: If there are links, videos, or other content to click on the site,
 what percentage of visitors click on that content.
- Conversion rate: What percentage of site visitors donate or purchase from the list of needed supplies.

All of these metrics can be derived from google analytics on the google site and success will be determined by comparing the analytics to the team's objectives and key results.

The impact of a Facebook landing page will be determined through six key metrics (Alsghaier et al., 2017), which include engagement, reach, impressions, Facebook referral traffic, number of page likes and follows, and click-through rate. The six metrics are defined below:

- Engagement: The number of times someone took action on a post including, leaving a comment, clicking a link, liking, sharing, or leaving a reaction.
- Reach: The number of views your content receives on Facebook.
- Impressions: Measures the number of times your post was seen, this includes if a post was seen by the same user more than once.
- Facebook referral traffic: The number of visitors your website receives from Facebook.
- The number of page likes and follows: The number of people who follow your brand. The success of this metric can be determined through a comparison of objectives and key results set by the team.
- Click-through rate: The number of people who see a post and click through to your landing page. The success of this metric can also be determined through a comparison of objectives and key results set by the team.

All of these metrics can be derived from Facebook's analytics tools. Kumar and Kaur (2019) discuss that social media is one of the most meaningful ways to relate

information in today's society. A strong social media presence can be instrumental in moving the mission of an organization forwards. Kumar and Kaur (2019) go on to state that utilizing Facebook analytics to evaluate the above metrics is the most effective way to generate engagement.

In our presentation, we also plan to incorporate a tutorial or outline for creating relevant social media posts for the organization. This may include descriptions of strategies such as the use of multimedia sources (images, video clips, etc), "story" features, tagging, and using relevant hashtags. A study by Giannoulakis & Tsapatsoulis (2016) defines hashtags as, "tags or words prepended with '#' used to indicate the content of the picture, allowing users to search for pictures and increase visibility".

Below is a list of relevant hashtags for content posted on social media by Irbis Mongolia:

#pallascat #snowleopard #savesnowleopards #phorse #Irbis #IrbisMongolia
 #Mongolia #Conservation #IMC #Snowleopardtrust

Discussion

Research done by Schipul (2010) found that a social media presence can directly lead to financial support for your organization. This principle is extremely important for the IMC, as many of their key priorities center around fundraising and financial stability. By registering the IMC Facebook page as an official non-profit company on Facebook, it allows for the addition of a "donate" button and fundraising directly through the Facebook account as well as the ability for other people to create fundraising campaigns with proceeds going to Irbis. According to Nonprofit Source (n.d.), in 2018 \$11.83 billion were given to charities focused on environmental and/or animal causes. Social media plays a big part in fundraising; 55% of people who engage with nonprofits on social media accounts take action and 59% of those people donate money (NonProfit Source, n.d.). Having an international reach is also important because 31% of all donations to nonprofits and other NGOs came from donors outside their country of residence (NonProfit Source, n.d.). We believe that IMC can use these online resources to cultivate new funding which will help further their mission.

Furthermore, research by Parsons et al. (2014) found that social media is instrumental in delivering accessible conservation messaging to a wider audience. According to Wu et al. (2018), approximately 29% of the world's population, about 2 billion people, use social media platforms. Facebook is extremely popular in Mongolia, in fact, 70% of Mongolians, around 2.2 million people use Facebook (Ankhtuyaa, 2019). Facebook can attract new donors, spread awareness, and build a sense of community (Schipul, 2010). Their research showed a statistically significant reach of conservation and science information for organizations that utilize an internet presence than those who did not. This preliminary data has led us to believe that the creation of a web presence for the IMC will lead to greater dissemination of their work for both communities in Mongolia and the United States as well as a potential for increased funding through donations.

Conclusion

This project has the greatest capacity for social impact. By investing in a web presence, the IMC will have effective tools to disseminate their research and conservation work. This new connectivity will enable the organization to reach and engage with a much wider audience than they do currently. This resource also has the potential to shine a spotlight and awareness on lesser-known species such as Pallas's cats. There is the potential for secondary ecological impacts that result from this new web presence. By garnering funding through donations on social media and their personal website, the IMC will have the resources required to conduct future conservation research. To further their conservation effort, the IMC can leverage their web presence to acquire additional conservation partners, run a fundraising campaign, and even potentially gain volunteers to aid in their work.

References

- Alsghaier, H., Akour, M., Shehabat, I., Aldiabat, S. (2017). The importance of big data analytics in business: a case study. *American Journal of Software Engineering and Applications*, 6(4), 111-115.
- Ankhtuyaa, B. (2019, April 2). 70 percent of Mongolians use Facebook. *News MN*.

 Retrieved from https://news.mn/en/787103/
- Dragonfly Materials. (2020) Retrieved from:

 https://docs.google.com/document/d/1cTzhlyE6gvOVBjqiulfhYqsZqUtPBoAO6D
 QOSVGs0ps/edit
- Giannoulakis, S., & Tsapatsoulis, N. (2016). Evaluating the descriptive power of Instagram hashtags. *Journal of Innovation in Digital Ecosystems*, *3*(2), *114-129*.
- Hayes, M. (2017, Sept 8). What languages are spoken in Mongolia? World Atlas:

 Society. Retrieved from

 https://www.worldatlas.com/articles/what-languages-are-spoken-in-mongolia.html
- Jackson, R., & Wangchuk, R. (2001). Linking snow leopard conservation and people-wildlife conflict resolution: grassroots measures to protect the endangered snow leopard from herder retribution. *Endangered Species Update, 18*(4), 138-141.

- Kaczensky, P., Enkhsaikhan, N., Ganbaatar, O., & Walzer, C. (2007). Identification of herder-wild equid conflicts in the Great Gobi B Strictly Protected Area in SW
 Mongolia. Exploration into the Biological Resources of Mongolia, 10, 99-116.
- King, S.R.B., Boyd, L., Zimmermann, W. & Kendall, B.E. 2015. *Equus ferus* ssp.

 przewalskii (errata version published in 2016). *The IUCN Red List of Threatened*Species 2015: e.T7961A97205530.

 https://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T7961A45172099.en.
- Kumar, V., & Kaur, G. (2019). Improving Facebook content strategy using Facebook analytics (A case study of Chandigarh cognate Facebook business pages owned and run by InfoTech Zone, Chandigarh, Punjab). *Praxis Science and Technology Journal*, 8(9), 1-8.
- Lan, T., Lan, C., & Tserendondog, O. (2011). Analysis of social network sites diffusion in Mongolia. *African Journal of Business Management*, *5*(23), *9889-9895*.
- Mishra, C., Allen, P., McCarthy, T. O. M., Madhusudan, M. D., Bayarjargal, A., & Prins, H. H. (2003). The role of incentive programs in conserving the snow leopard.

 *Conservation Biology, 17(6), 1512-1520.
- Munkhtsog, B., Purevjav, L., McCarthy, T., & Bayrakçısmith, R. (2016). Northern Range: Mongolia. In Snow Leopards (pp. 493-500). *Academic Press*.

- Munkhtsog, B., Ross, S., & Brown, M. (2004). Home range characteristics and conservation of Pallas' cat in Mongolia. Unpublished manuscript.
- NonProfit Source. (n.d.). The ultimate list of charitable giving statistics for 2018.

 Retrieved from https://nonprofitssource.com/online-giving-statistics/
- Parsons, E.C.M., Shiffman, D.S., Darling, E.S., Spillman, N., Wright, A.J. (2014). How Twitter literacy can benefit conservation scientists. *Conservation Biology, 28*(2), 299-301.
- Ross, S., Barashkova, A., Farhadinia, M.S., Appel, A., Riordan, P., Sanderson, J. & Munkhtsog, B. 2016. Otocolobus manul. The IUCN Red List of Threatened Species 2016:

 e.T15640A87840229.https://dx.doi.org/10.2305/IUCN.UK.2016-1.RLTS.T15640A 87840229.en.
- Schipul, E. (2010). Accelerating fundraising through social media. *Nonprofit World,* 27(1), 20-21.
- Schneider, H. (2017). The Partners Principles for Community-Based Conservation.

 Oryx, 51(4), 754–755.
 - https://doi-org.login.ezproxy.library.ualberta.ca/10.1017/S0030605317001387

- Sullivan, M., Robinson, S., & Littnan, C. (2019). Social media as a data resource for #monkseal conservation. *PLOSOne*. doi:10.1371/journal.pone.0222627
- Tarav, M., Tokunaga, M., Kondo, T., Kato-Mori, Y., Hoshino, B., Dorj, U., & Hagiwara, K. (2017). Problems in the protection of reintroduced Przewalski's horses (Equus ferus przewalskii) caused by piroplasmosis. *Journal of Wildlife Diseases, 53*(4), 911-915.
- Upton, C. (2010). Living off the land: Nature and nomadism in Mongolia. *Geoforum,* 41(6), 865-874.
- Waters, R., Burnett, E., Lamm, A., Lucas, J. (2009). Engaging stakeholders through social networking: How nonprofit organizations are using Facebook. *Public Relations Review. 35*(2), *102-106*.
- World Population Review. (2020). *Mongolia Population 2020* (Live). Retrieved from https://worldpopulationreview.com/countries/mongolia-population/
- Wu, Y., Xie, L., Huang, S., Li, P., Yuan, Z., Liu, W. (2018). Using social media to strengthen public awareness of wildlife conservation. *Ocean & Coastal Management*, 153, 76-83

Appendix I

Sample social media posts created using canva.com.











Mongolia is a landlocked country bordered by China and Russia



The country's rugged landscape is home to critical species such as snow leopards, Pallas's cat and Przewalski's horse.

34%

of the population relies on mobile pastoralism as a way of life. This makes livestock depredation by wildlife a major source of conflict for Mongolians.



To learn more about how you can help resolve wildlife conflict visit:

irbismongolia.org





DID YOU KNOW...

PALLAS' CATS

are known in Mongolia as "manul" or the ugly-eared cat.

These small cats will use rock crevices and marmot burrows as dens.





ARE NEAR-THREATENED

populations are in decline due to loss of prey, habitat fragmentation, and poisoning from pest control methods

RELY ON MARMOTS

conservation of Pallas' cats is linked to den availability. Without the presence of marmots, Pallas' cats lack a safe place to give birth.





CONSERVATION

Irbis Mongolia works to monitor Pallas' cat populations in the wild to ensure their future survival

HELP IRBIS MONGOLIA SAVE PALLAS'S CATS



Visit www.irbismongolia.org to find out more about the amazing Pallas's cats and how you can help!



Interesting facts about Irbis's namesake, the snow leopard.



DID YOU KNOW,

1000

the approximate number of snow leopards living ir Mongolia today





POPULATIONS ARE DECREASING





In Mongolia, major threats to snow leopards include habitat fragmentation, lack o awareness, retaliatory killings and reduction in prey source: due to illegal hunting

MAJOR THREATS





CONSERVATION



Irbis Mongolia works to monitor and protect wild snow leopard populations. The use of nighttime electronic deterrents keep both snow leopards and livestock safe.

HELP IRBIS MONGOLIA SAVE THE SNOW LEOPARD

Visit Irbismongolia.org to learn more about the snow leopard and help our cause!

PRZEWALSKI'S HORSE



Fast Facts About the Przewalski's Horse from Irbis Mongolia



Photo credits: Elena Mashkova

Przewalski's horses are the world's only remaining true wild horse. Feral horses in North America, Europe, and Australia are actually domesticated horses that have escaped from human care and become feral.

THE P-HORSE

নি নি



All Przewalski's horses alive today are descended from 12 founders.

66

The Przewalski's horse has 66 pairs of chromosomes whereas domestic horses only have 64!



CONSERVATION



the number of native born Przewalski's horses living in Mongolia today after being declared extinct in the wild in

1060

LEARN MORE ABOUT P-HORSES!

Visit our website and follow us on social media. www.irbismongolia.org Instagram: @irbis.mongolia