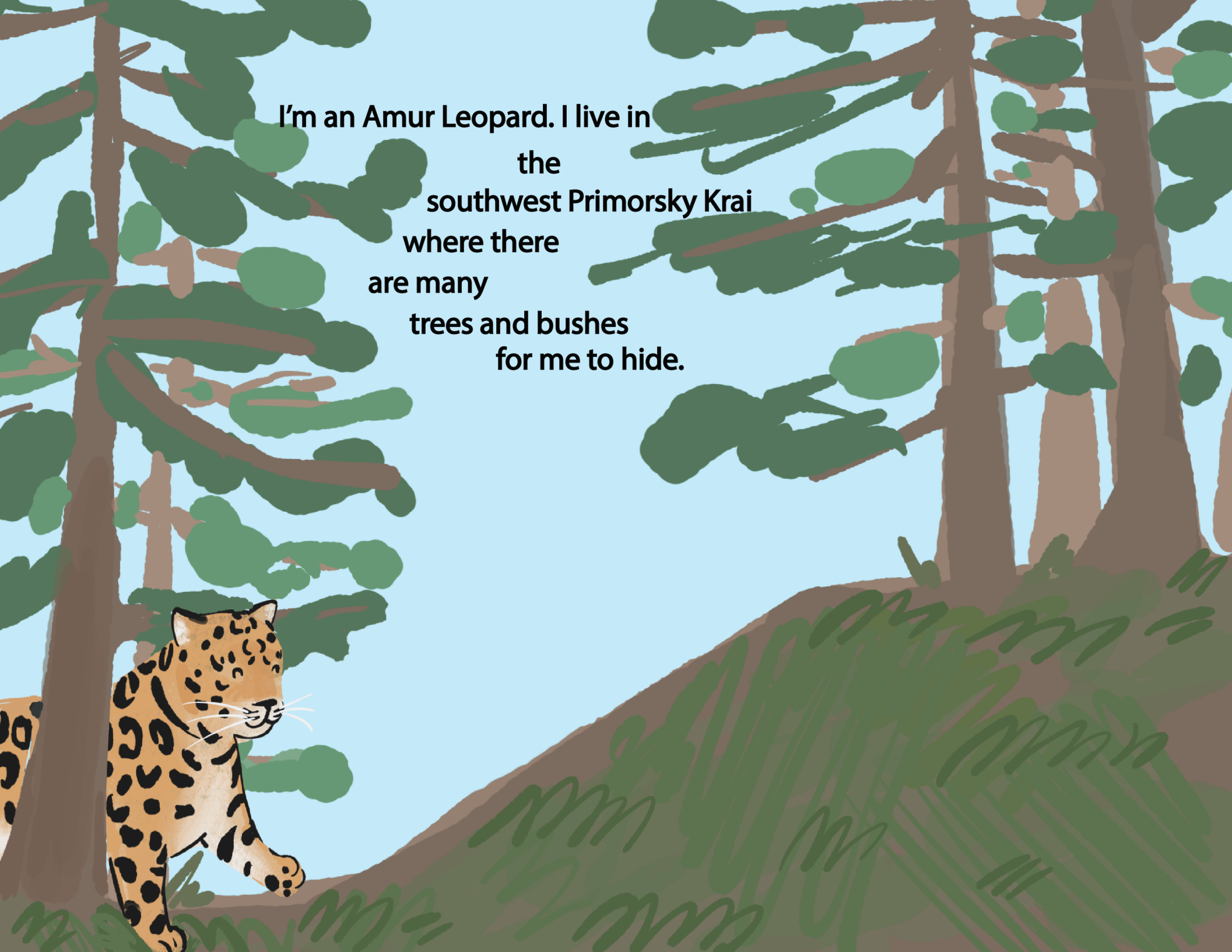

The Greatest
Amur Leopard!

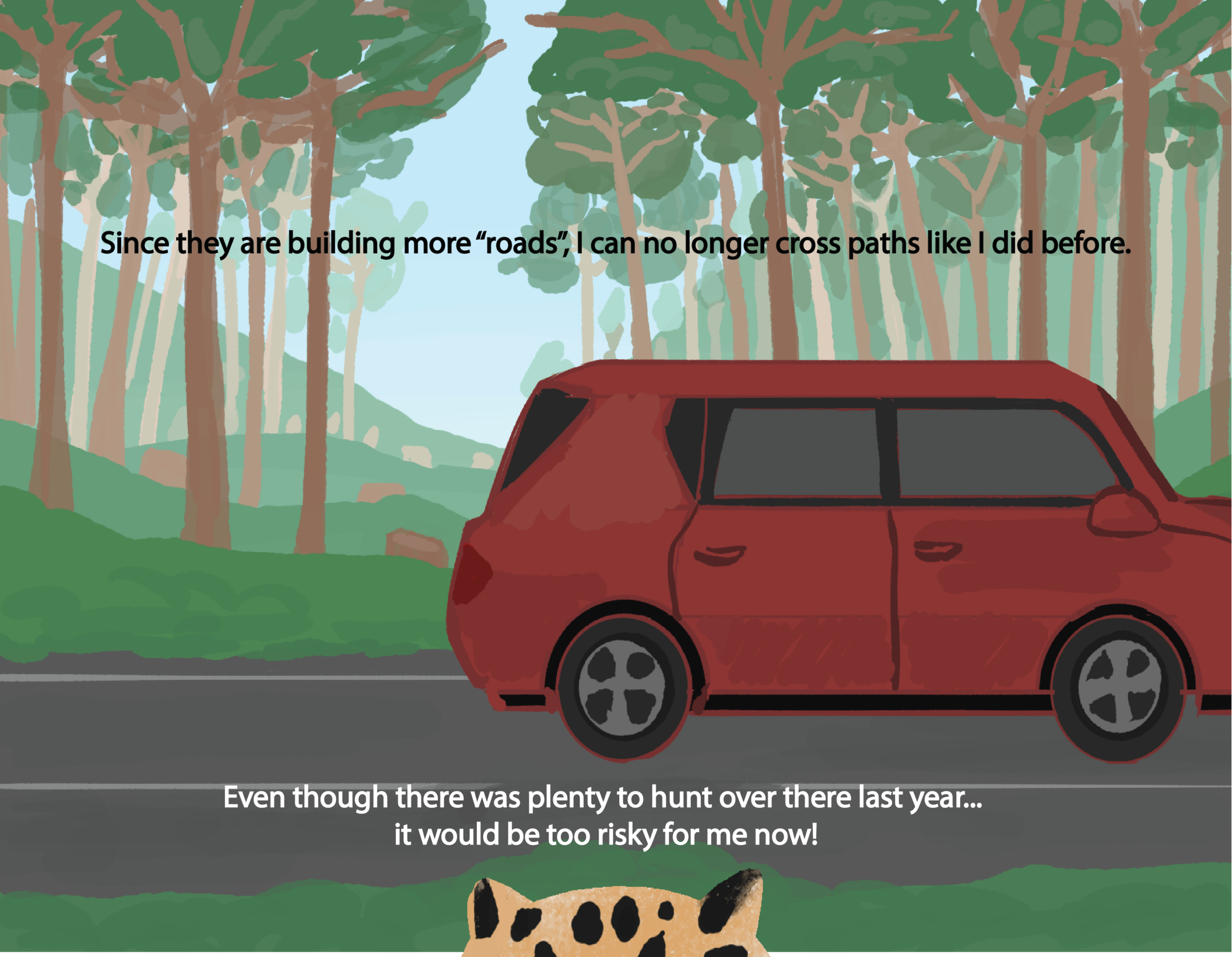

I'm an Amur Leopard. I live in
the
southwest Primorsky Krai
where there
are many
trees and bushes
for me to hide.


This is the only place where my species
lives and I am
the most intelligent of them all.


Not only am I good at hiding, I'm also good at hunting! My favorites are the roe deer, sika deer, and --- if I'm feeling risky --- the wild boar.


But Amur Tigers like wild boar, and my instinct tells me to not risk running into trouble with them.

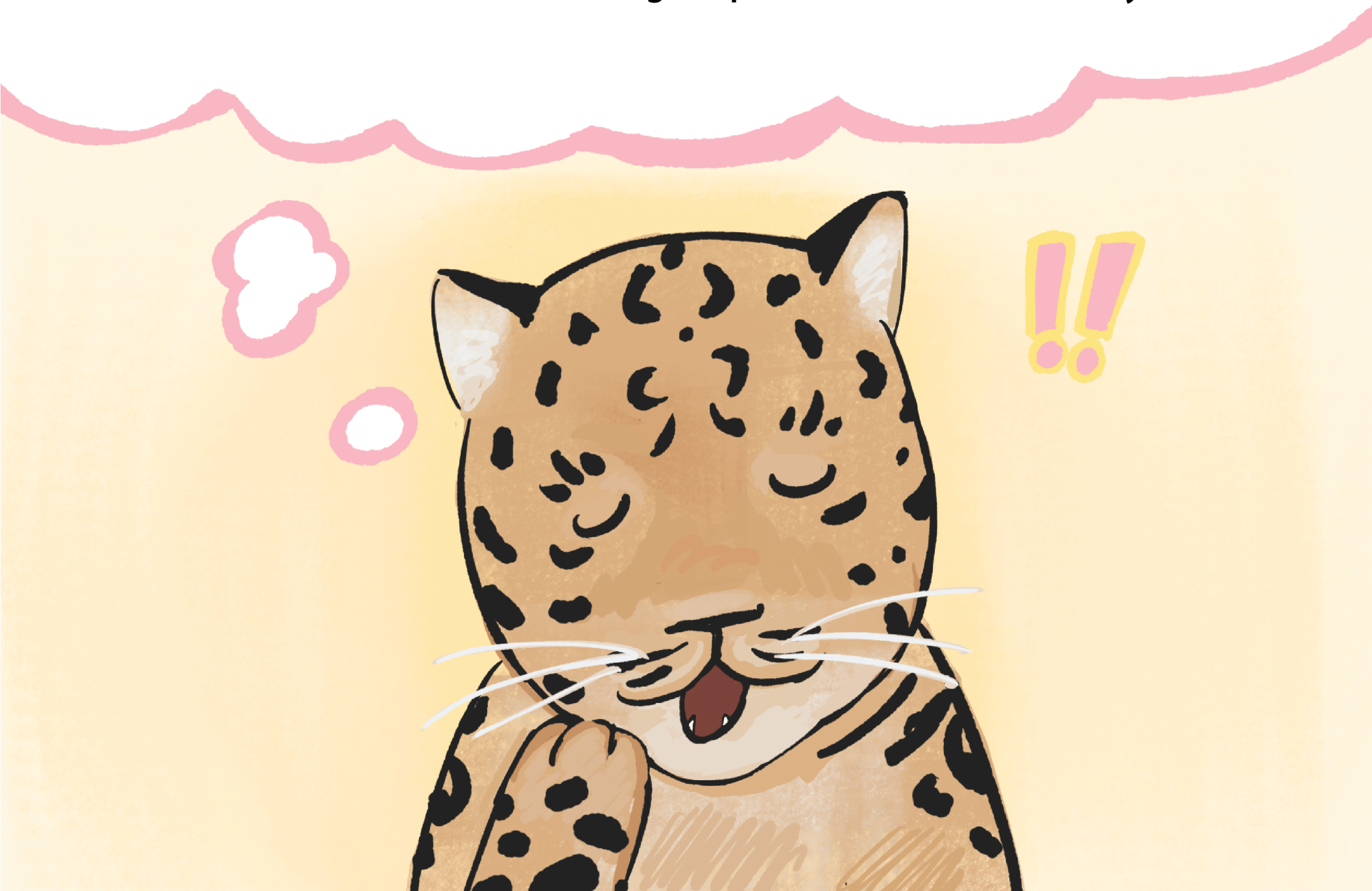

Though I am good at everything I do, there is a lot to worry about these days.
The humans nearby have been getting closer, making it harder for me to do my daily routine.


Since they are building more "roads", I can no longer cross paths like I did before.
Even though there was plenty to hunt over there last year...
it would be too risky for me now!


I also fear that the summers will get hotter and the winters colder.

With more snow, my favorite deers are harder to catch fresh!

Though everything is getting harder for me..
I hear rumors that there is a good place for me to move nearby!



Just through a patch of forest there lies the mountains of China.
The rumors say there are plenty of prey and many trees!

I hope I can move there if needed.
Personally, as the smartest Amur Leopard, I think it's entirely possible!

Term Project Summary

My project focuses on the critically endangered Amur Leopards that inhabit the southwest Primorsky Krai located in Far East Russia. The area, connected through an extensive forest to the Changbaishan Mountains in the provinces of Jilin and Heilongjiang in China, is the only area on Earth where Amur Leopards reside (Miquelle, Dale G., et al.). The southwest Primorsky Krai is largely forested with limited amounts of human settlements nearby, which is suitable for the Amur Leopards, but threats of expansions of nearby highways and railways pose a huge threat to the Amur Leopards' already limited space.

Amur Leopards are elusive, a trait that not only helps them hunt but also avoid running into unnecessary threats such as human hunters or their direct competitors, Amur Tigers. Amur Tigers share a similar diet with the Amur Leopards and with both being of similar size, physical conflict is a risk due to them inhabiting the same space. By traveling through ridge trails, rockier paths atop mountains or hills often with steep slopes, the leopards skillfully evade the tigers that prefer lower altitudes (Yang, Haitao, et al.). Though their elusiveness serves them well, it also limits their movement and accessibility to prey as the nearby human settlements expand roads out. Due to the development of a strip connecting nearby human settlements, in 2010 the yearly snow track surveys show the Amur Leopards failed to travel into the Sikhote-Alin Mountains, though they had done so in prior years (Miquelle, Dale G., et al.). The active proof of their activity area growing smaller due to human-actions shows a very real issue in how humans have and will continue to impact them.

Climate change will also be important to consider in the conservation of the Amur Leopards. As precipitation is expected to decrease and snowfall is predicted to increase in the

Russian Far East due to the climate crisis, the leopards are expected to struggle more with hunting and lose out on prey (Lim, Jeong Eun Anya). A decrease in precipitation will affect the foliage and plant-life in the area, negatively impacting the diet of the roe and sika deer, the main prey of the leopards. In addition, the Amur Leopard's other prey consist of small to medium-sized omnivorous mammals who also depend on the plant-life. This decrease in precipitation will therefore hurt the Amur Leopard's quality and selection of prey. Increased snowfall and buildup will also make navigating the already rough terrain more difficult for the leopards and their prey. With prey lost to snowfall and not active hunting, the leopards will fail to obtain fresh food. Not all is lost though, as there are many proposed areas of land where the Amur Leopards can expand into. Linked to the very area the leopards currently reside in through a forest boundary, there is an estimated 25,000 km² of potential suitable land in the Changbaishan Mountains for the Amur Leopards to potentially inhabit with slight restoration efforts such as limiting poaching activities, reducing human access through land-use planning, and maintaining connectivity throughout borders needed (Miquelle, Dale G., et al.). Along with that, in Korea, where an Amur Leopard population once existed pre-Japanese colonization, there is the Demilitarized Zone (DMZ) that also proves itself to be suitable in terms of lack of human-population in the area, land covering and foliage suitable for their evading, and availability of prey (Lim, Jeong Eun Anya).

I created a digital mock up of a children's book that will be marketed towards kids aged 8-12. My intentions are to inform a younger audience about the existence and endangerment of the Amur Leopards in order to educate them early on. The next generation is our future and as our generation becomes more informed on topics such as conservation or climate change, it is important we don't forget about spreading that knowledge to kids. One part of conservation

efforts is support, both through the spread of information and financially through funds. An early introduction to an endangered species will hopefully spark interest in animal conservation or even introduce the topic to parents of those kids. I want to shed more light on a species I myself didn't even know about in a way that kids can hopefully understand. The book is told in the first person point of view of an Amur Leopard explaining their daily schedule in order to introduce the species in a more personable manner to make the leopard easier to sympathize with and keep the interest of a child audience. Their interest in the story and sympathy for the Amur Leopard are important elements in their future opinion and action for this or other endangered species

My first scientific concept is the benefit of the Amur Leopard's elusive nature which I introduced early on in the written narrative through the leopard's introduction of itself. I also show the leopard simply hiding in two separate instances, once high up in a ridge trail and another in a bush. The scene showing the Amur Leopard high up on a ridge trail represents a tactic they actually employ when avoiding Amur Tigers. This also largely dictated what locations I chose to show the Amur Leopard in. I chose to incorporate a lot of trees all throughout the visual portion of the book to allude to what type of environment the Amur Leopard would need to effectively hide. My second scientific concept is how humans and human settlements have impacted the Amur Leopards. I specifically show this with the scene of the leopard looking at the road and lament about no longer being able to cross over. The road and cars drawn in contrast to the Amur Leopard are used to show how human actions prevent the Amur Leopard from performing at their full ability. In order to stretch this concept a little further than just one written section, I also represented human-actions through tree-stumps. They show up on three pages and suggest that humans have already gotten closer, cleaning out forested areas to make room for human expansion of roads or settlement. My last scientific concept is how climate change is

predicted to impact them. This is most directly addressed in a later portion of the book through written text from the thoughts of the leopard and visually through a portrayal of heavy snow in a part of the forest. I will end the book on a lighter note, presenting the possible area of relocation for conservation as a hopeful idea the leopard has heard of. This will also help inform the reader on where there is possibly hope to address the problems the leopards face that were introduced.

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