

Saving THE Underdogs



Dhole or Asiatic Wild Dog

is a large carnivore that lives in groups

called packs. Dhole packs can have 2 to 25 members.

Dholes are apex carnivores, and share space with other predators like tigers, leopards, wolves, and snow leopards. Their populations continue to decline because of habitat loss, decrease in prey animals, and also perhaps through spread of diseases from domestic dogs. Dholes have already gone extinct from 80% of the areas where they historically occurred.

Saving the dhole will require conducting quality scientific studies to better understand them, dedicated efforts from government agencies to protect their populations and habitats, and conservation support from the public. With this context, my doctoral dissertation work was focused on the conservation ecology of dholes, to design science-based strategies to conserve the species.

Bio:

Arjun is a wildlife biologist who works on the conservation ecology of large carnivores in India. He earned a PhD from the University of Florida (USA), and is currently a Research Associate with Wildlife Conservation Society-India.



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Saving THE Underdogs

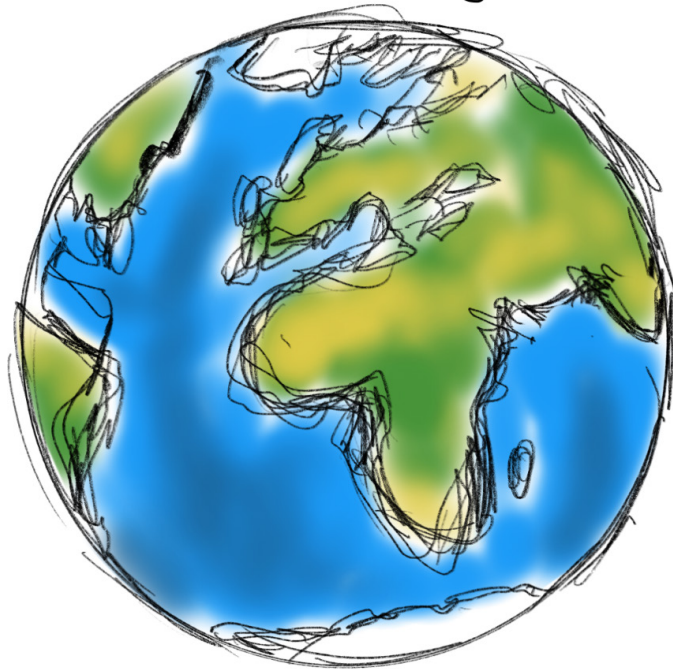


Dholes are wild dogs that live in the forests of south & southeast Asia. There are a few thousand dholes left in the world, & this makes the dhole an **endangered** species.

So...how do we save them? And where?

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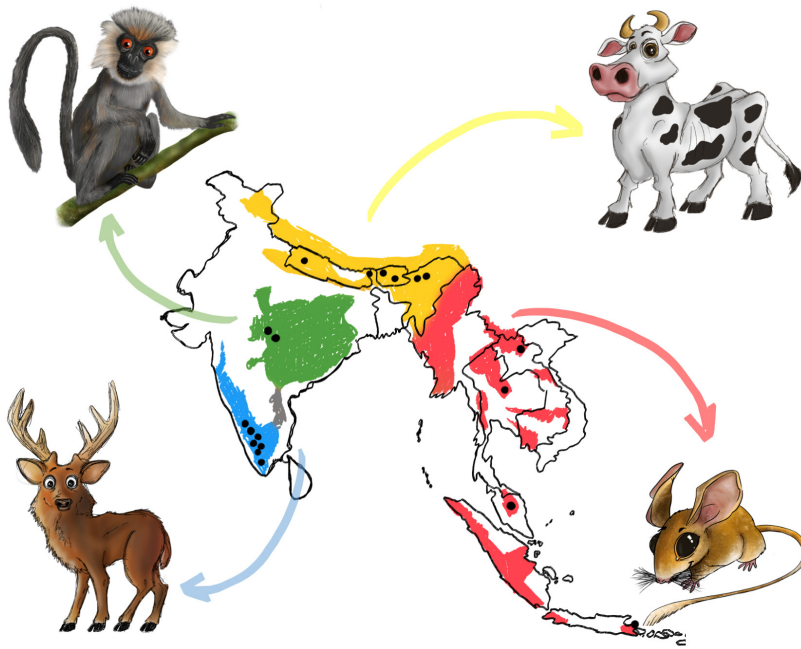
First, let's get a



global perspective




What exactly do dholes eat ?



Dhole diet varies. In **south India** dholes eat more deer*. In **central India** they eat more monkeys*. In **Northeast region** more livestock*, & more rodents* in **southeast Asia**. *compared to other regions



Why do they eat livestock ?

① 
lot of livestock available

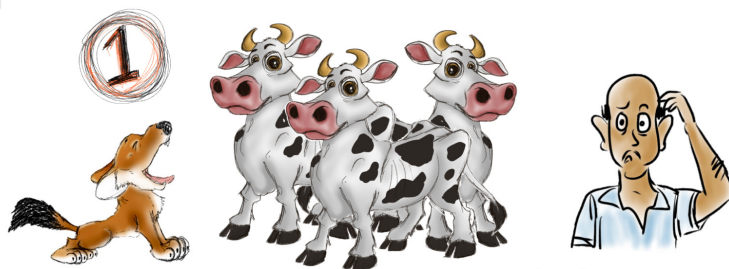
② 
lot of prey animals

③ 
ALONG WITH more competitors...

Dholes consume livestock when there's a lot of livestock in the area. They also consume livestock when there's a lot of wild prey animals along with high number of competing co-predators.



When does 'conflict' happen ?



when dholes eat more livestock

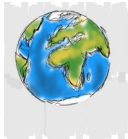


packs are smaller



other "dangerous" carnivores around

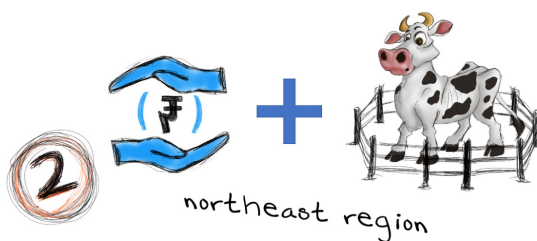
People view dholes negatively when they eat more livestock, in places where dhole packs are smaller, & when there're a lot of other potentially dangerous carnivores in the area.



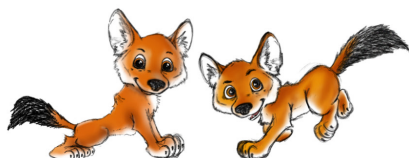
So, how to mitigate conflict and conserve dholes ?



south & central India



northeast region

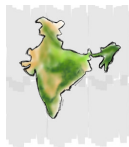


southeast asia

Efficient government-aided compensation in South & Central India. Northeast Region needs insurance schemes & better husbandry practices. Southeast Asia should focus on increasing prey animals.

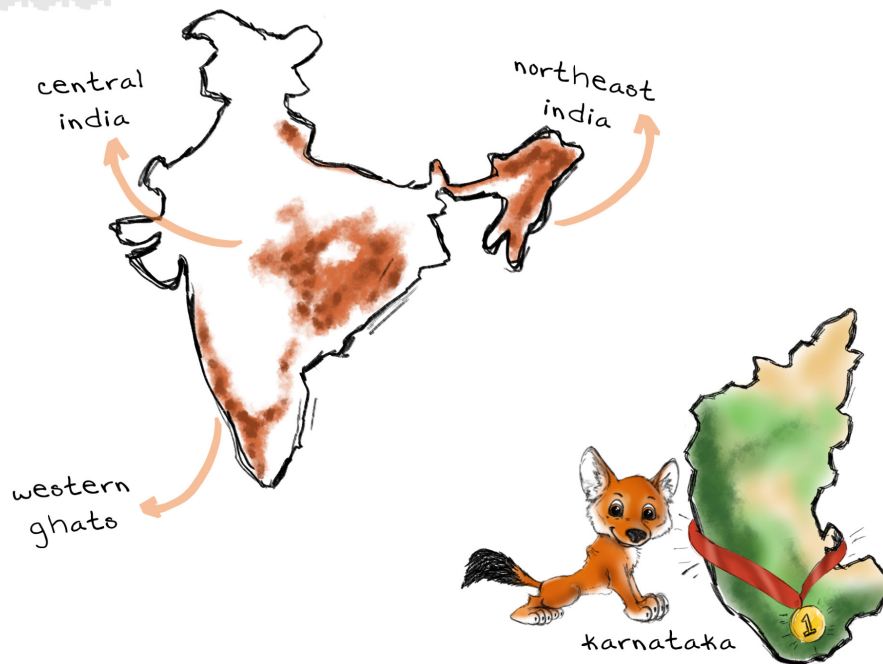
Now, let's look at India

7



Where are dholes found ?

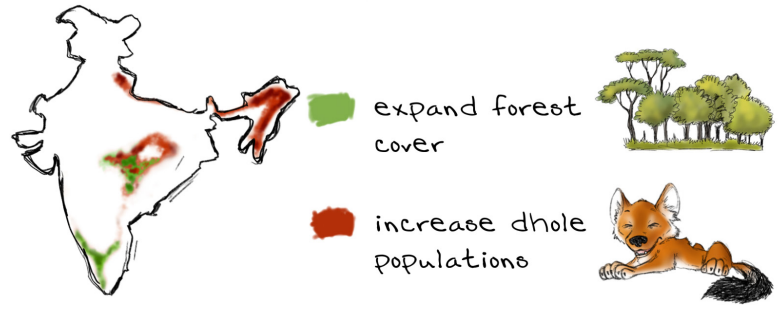
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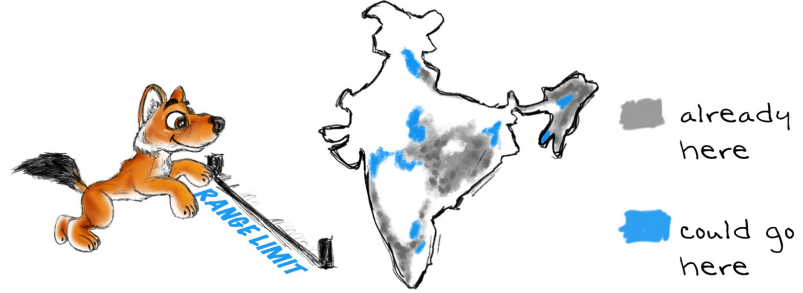
India has the highest global dhole population, mostly in 3 landscapes: Western Ghats, Central India & Northeast India. Based on current status of dholes, Karnataka in Western Ghats ranks #1.



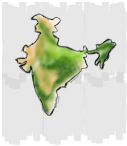
Where/How to 'recover' dholes ?



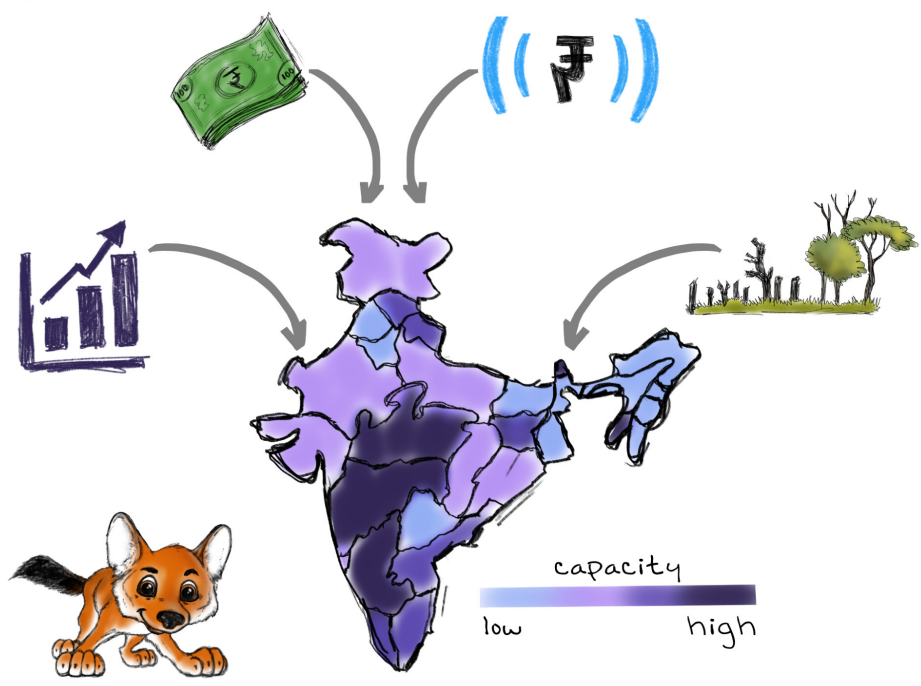
Where else can they go ?



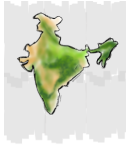
South & Central India need to expand forest cover. Northeast & parts of central India need to increase dhole populations. Eastern Ghats, Central & north India have potential for range expansion.



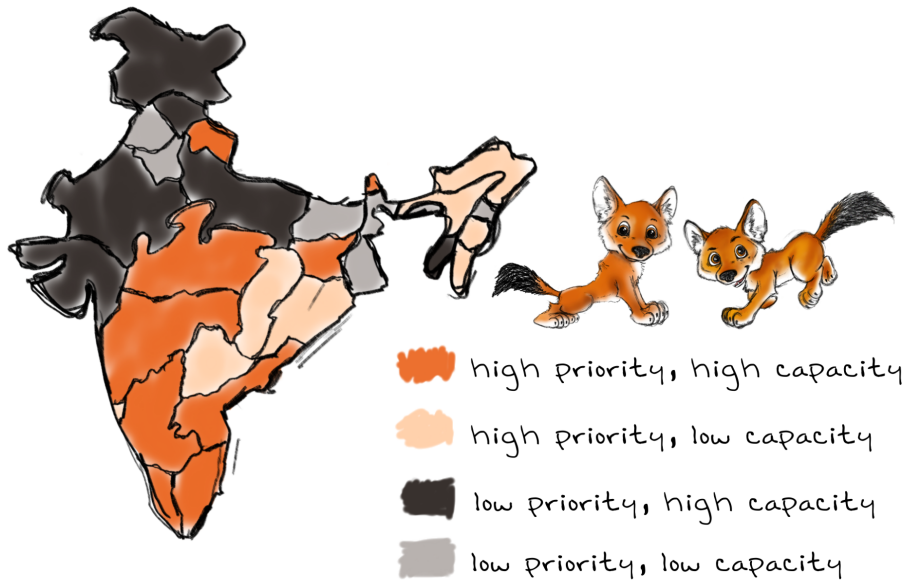
What else should be considered ?



Every State needs the 'capacity' to conserve dholes. This capacity could be determined by GDP share, poverty levels, budget available for conservation & rate of forest clearances.



So, what next for India ?

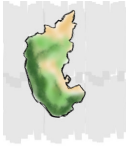


We now know which States are high priority & which States have high capacity to conserve dholes. This can help create a country level science-based conservation plan for dholes.

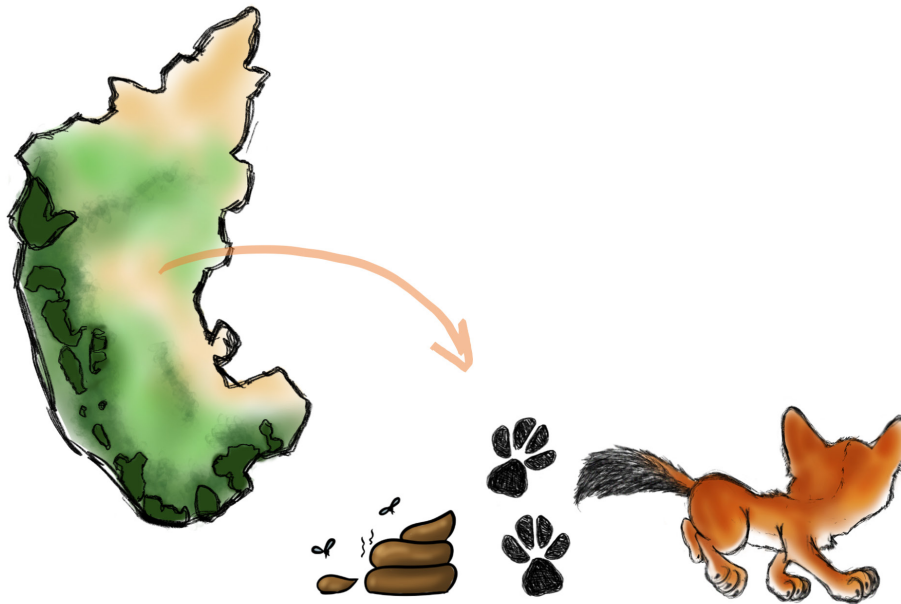
Let's dig deeper



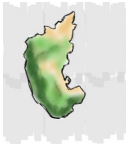
in Karnataka



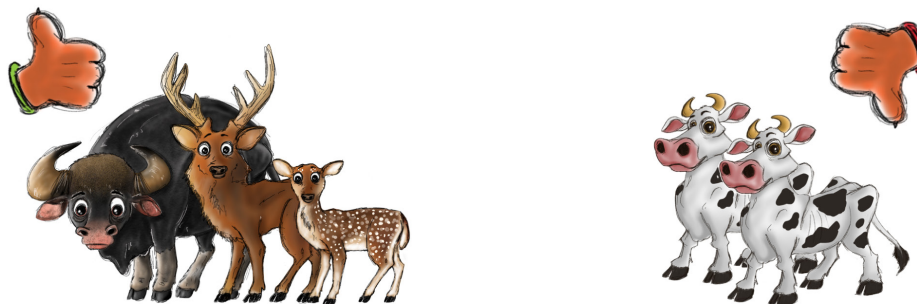
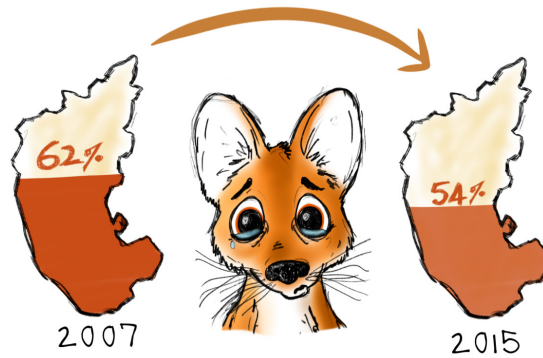
How do we find/map dholes ?



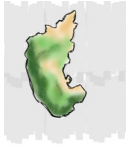
Dholes live in Karnataka's Western Ghats forests. Surveying along forest roads & recording their signs like poop & track marks, we can map their distribution & gauge how much area they occupy.



What changed over time ?



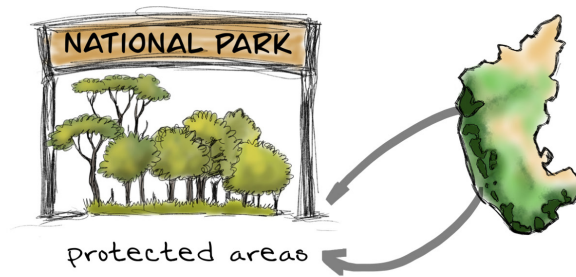
In less than a decade, dhole-occupied areas reduced in Karnataka. Dholes still preferred areas with high abundance of wild prey animals, & avoided areas with high livestock activity.



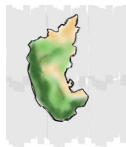
Why did they go extinct ?



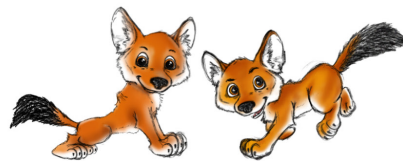
Where were they safe ?





Dholes went locally extinct in areas with high loss of forest cover. They remained somewhat safe in forests within protected areas like national parks & wildlife sanctuaries.



What can we do in Karnataka ?



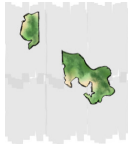
-  consolidate/save habitats
-  maintain/increase protection

Maintain or increase protection in **select protected areas** to retain dhole occupancy. **Habitats adjoining** these areas should remain wildlife-friendly to aid movement & dispersal of dholes.

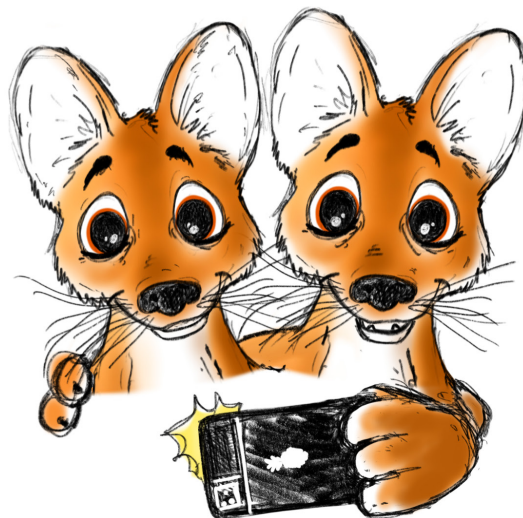
Zooming in on a protected area



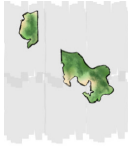
Wayanad Sanctuary, Kerala



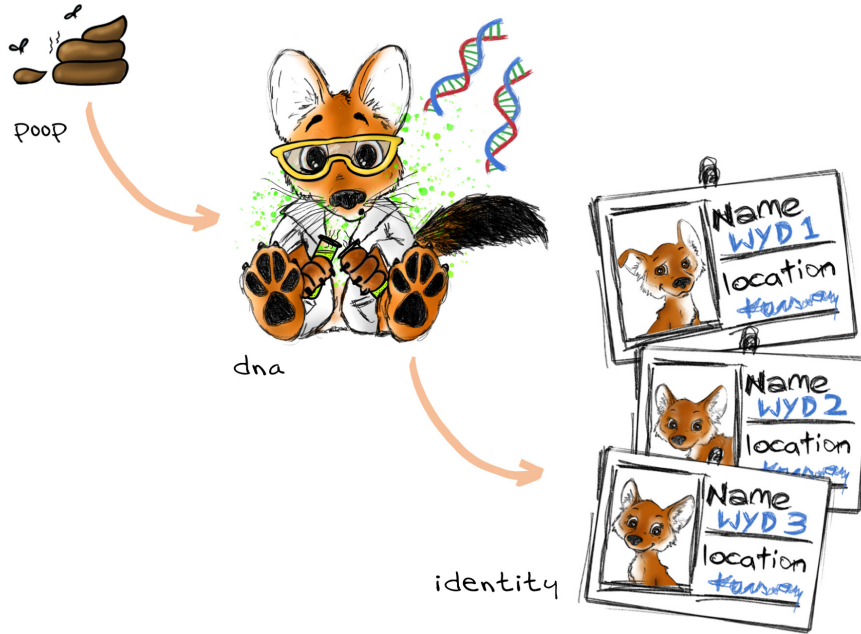
How do we monitor dholes ?



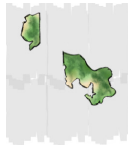
It is important to count how many dholes there are, so that we can monitor their populations. But dholes look very similar to each other, so we cannot use camera traps to identify, count or monitor them.



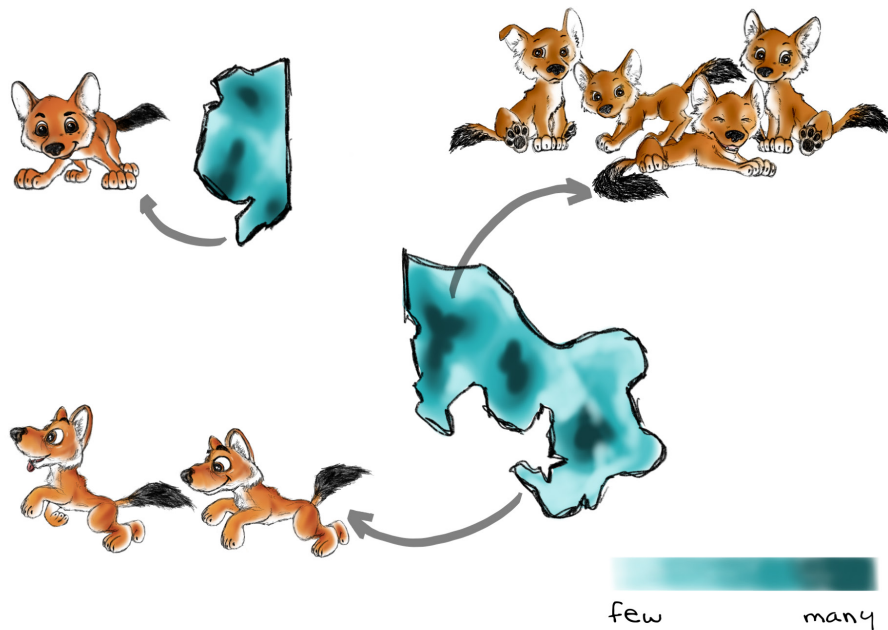
Then, how do we identify them ?



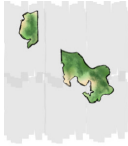
Using their poop, we can extract dhole DNA in the lab. Since every dhole's DNA is different, we can use this to first identify individuals, & then figure out how many dholes exist.



How're they doing in Wayanad ?

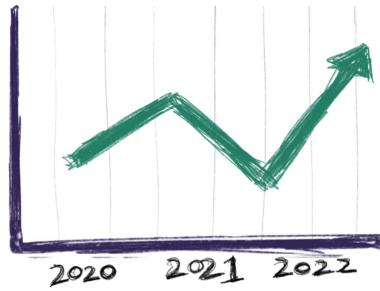


Based on poop DNA analysis & statistical models, Wayanad seems to have a healthy population of dholes. The models also helped map areas with a lot of dholes & areas with very few dholes.

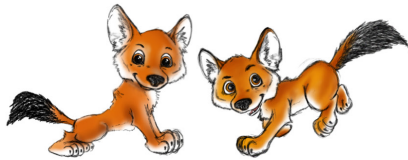


What do we do in the future ?

over time



across space



Using DNA from their poop, dhole populations in Wayanad should be carefully monitored over multiple years. Dhholes should be similarly monitored in different protected areas across India.



Conserving dhholes will need multiple strategies depending on which levels & what locations we focus on. But all these strategies should be backed by scientific research, as shown in this storyboard based on my doctoral dissertation work.

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