

# Citizen Conservation

Limitations of traditional  
conservation measures and the role  
of technology in mitigating them

Laterite Narrow-mouthed Frog

Source: Ramit Singal

- The Laterite Narrow-mouthed frog was discovered at End Point in 2016 as a result of a citizen's observations.
- Additional Reading Material:
- Case Study #16, page number 112 in the “environmental reader” textbook
- <https://www.wcs.org/get-involved/updates/wild-seve-celebrates-10-000-cases>
- <http://www.conservationindia.org/campaigns/amur-massacre>
- <https://birdcount.in/amur-falcons-from-russia-to-africa/>

- Which are the animals that require conservation ???



# Popular Subjects of Conservation Measures



Source: National Geographic Channel



Source: Earth.org

- When asked about what animals require conservation, the answer is usually a tiger or a panda or other such popular animals.
- But these animals are usually not the one who are in most need of conservation. Furthermore, these animals are somewhat easier to conserve because they are easily marketable due to either their cultural importance and/or innate aesthetic appeal.
- This makes it easier to get funding and/or influence policy that enables their successful conservation.





India's Tiger Population Has Increased By 1300% Since It Was Declared National Animal 44...

10.6K SHARES



## India's Tiger Population Has Increased By 1300% Since It Was Declared National Animal 44 Years Ago



BOBINS ABRAHAM | NOVEMBER 18, 2017

10.6K SHARES



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It has been 44 years since India got its national animal, the bengal tiger. It was a part of 'Project Tiger' an initiative launched by the then minister Karan Singh on April 1st that year to check the dwindling population of tigers in India.



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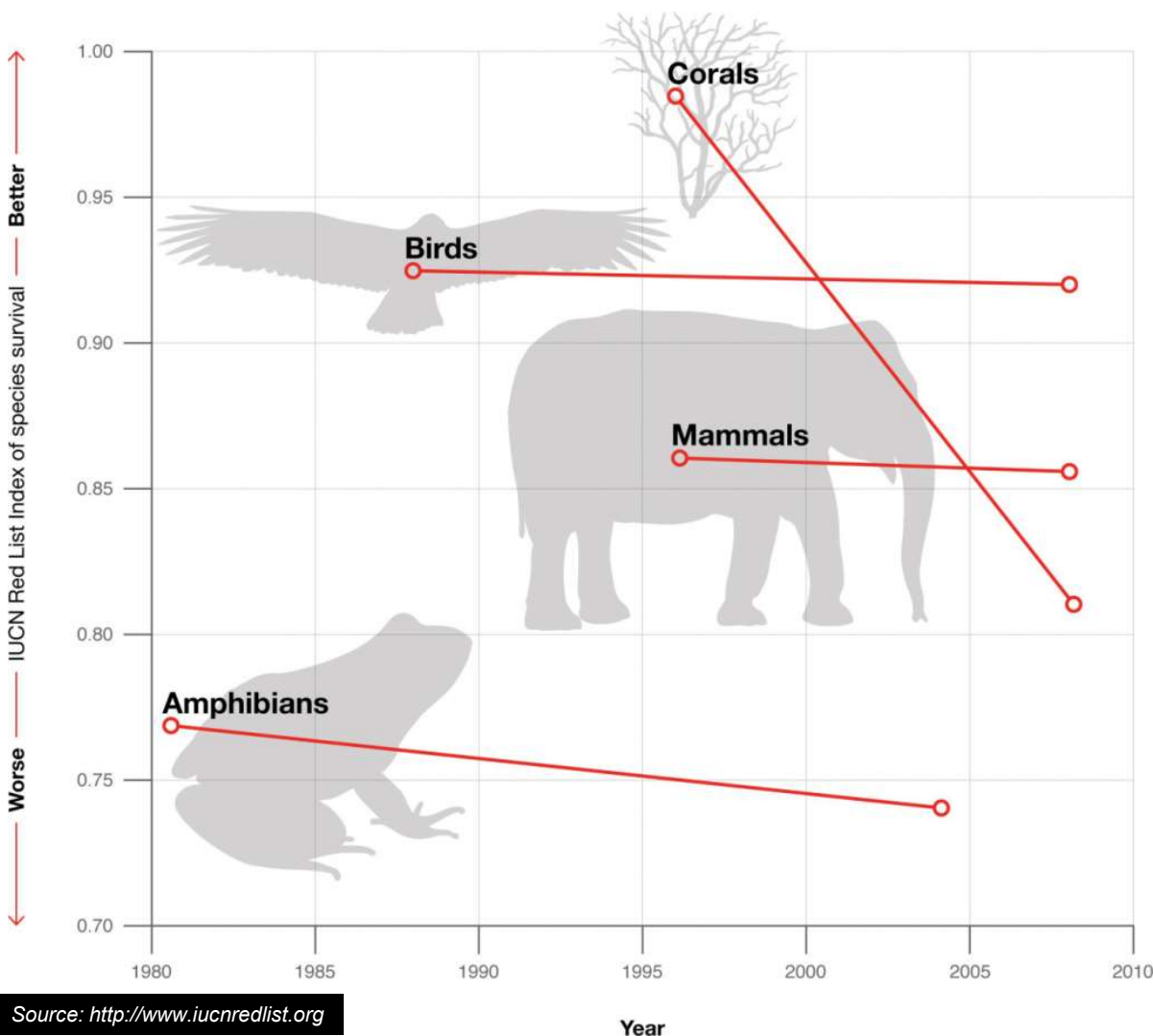


## Step away from extinction

Great news! Giant pandas are no longer classified as 'endangered'. They've been downgraded to 'vulnerable' on the global list of species at risk of extinction after their population increased by 17% in a decade. It shows that conservation efforts are working and provides hope for the world's other threatened wildlife.

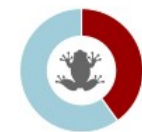
- The success of their conservation is evident in their numbers.
- Tiger populations have risen 1300% since it was declared as the national animal 44 years ago
- Panda populations have risen 17% in a decade and is no longer listed as endangered.

# Extinction risk of various animals



## One in four species are at risk of extinction

Species assessed by the IUCN Red List



Amphibians

40%



Conifers

34%



Reef corals

33%



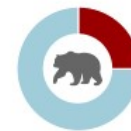
Sharks and rays

31%



Selected crustaceans\*

27%



Mammals

25%



Birds

14%

\*Assessed species include lobsters, freshwater crabs, freshwater crayfishes and freshwater shrimps

Source: IUCN Red List of Threatened Species



- Instead, there are other animals like amphibians which are in much higher need of conservation, as can be seen from the graphics in this slide.
- But there in lies the problem. Animals like amphibians don't receive adequate funding for conservation usually because of their weak cultural influence and lack of aesthetic appeal.
- This is a huge problem because their conservation requires specialist training and separate efforts for monitoring which requires considerable financial backing.
- It is also harder to influence policy for their conservation for the same aforementioned reasons.

# Citizen Science Initiatives

India Biodiversity Portal

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**Biodiversity India** India Biodiversity Portal

Species - Observations - Maps Documents - Contribute - Discussions Datasets Pages - More -

National Moth Week 2019 is on between 20 and 28th July. Participate by uploading moth observations.

**Welcome to India Biodiversity Portal**

A unique repository of information on India's biodiversity. The Portal aims to provide open and free access to biodiversity information. The portal enables widespread participation by all citizens in contributing to and accessing information on Indian biodiversity. We believe such open access benefits science and society, and contributes to sustainable future. Your participation is vital. We welcome your participation and feedback. More ...

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31236	1373956	206	2588	60	181

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**Bare-throated Tiger-Heron** *Tigrisoma mexicanum* © Daniel Irons  
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23,698,494 Observations to Date

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BJ Stacey - Shark Eye Snail from Essex County, Massachusetts, USA

CALIFORNIA ACADEMY OF SCIENCES NATIONAL GEOGRAPHIC

iNaturalist.org is a joint initiative of the California Academy of Sciences and the National Geographic Society.

How It Works

- This is where the role of technology and citizen science comes in. Citizen science initiatives are those where people even without advanced scientific training can contribute to the progress of the scientific field of their interest.
- It encourages people to submit their observations on various online platforms which are reviewed by experts and confirmed. This is an advantage for the hobbyists as they get their observations confirmed by an expert and also get an online database of their observations.
- It is also an advantage for the experts as it saves them the trouble of making these observations and get a rich dataset for next to no cost.
- For wildlife, ebird, inaturalist and india biodiversity portal are few of the famous ones being used in India.



# The Case of Amur Falcons





- Amur Falcon is a handsome small pigeon-sized raptor. It has one of the longest migration routes in the world, covering almost 22000km in a single year.
- Their biggest congregation according to some estimates happens in the Wokha district of the north-eastern state of Nagaland.
- This entire data in this map was generated by people contributing their observations to ebird, an online citizen science portal for submitting observations of birds.

UPDATES

# WILD SEVE CELEBRATES 10,000 CASES

JULY 9, 2018



- In India, technology does not only aid in helping wildlife, but also humans. Wild seve is a mobile technology-based platform where a farmer can call a toll-free number to report a wildlife-conflict related incident.
- Trained personnel then physically come to help the farmer in filing compensation claims and other due processes to get fair compensation for their damage from the government.
- This helps the farmers be more tolerant of wildlife around them and ensure protection of the wildlife as well.