See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/379022738

Ecopedia documentation

Research Proposal · August 2023

DOI: 10.13140/RG.2.2.20174.47687

CITATIONS 0		reads 59	
3 authors:			
	Subrat Mallick Indian Institute of Science Education and Research Berhampur 9 PUBLICATIONS 0 CITATIONS SEE PROFILE		Prajna Samriddhi Panda Indian Institute of Science Education and Research Berhampur 4 PUBLICATIONS 0 CITATIONS SEE PROFILE
Casis	Oasis Ecology Club Oasis - The Ecology Club 2 PUBLICATIONS 0 CITATIONS SEE PROFILE		

Project Ecopedia, by Oasis - IISER Berhampur

Approach to biosphere, to read, document and digitise the observation

Authors;

Subrat Kumar Mallick *, Prajna Samriddhi Panda, Oasis Indian Institute of Science Education and Research, Berhampur

* Author of Correspondence : Subrat Kumar Mallick, Indian Institute of Science Education and Research, Berhampur

subrat21@iiserbpr.ac.in

Information

Written on: August 28, 2023

Abstract

Oasis, the Eco Club at IISER Berhampur, is leading an initiative called "Ecopedia: Documenting Ecology at IISER Berhampur" with the goal of cataloguing the biodiversity on campus and the surrounding ecosystems. The project, which was first conceptualised by former Oasis members, was revitalised with a flexible, long-term framework by the current team, with a broad target audience that included senior researchers and junior students.

Ecopedia includes scientific and creative writing on ecology in addition to detailed documentation of plants, insects, birds, and climate conditions. By employing diverse formats such as electronic catalogues and scientific analyses, the project prioritises authorship and referencing transparency, guaranteeing a cooperative and all-encompassing method of ecological documentation and investigation.

Ecopedia

an Initiation from Oasis - The Eco Club of IISER Berhampur.

What was the basic plan and how it evolved?

— Campus Ecopedia was the idea of former Oasis members, who, for academic or some other reasons, couldn't continue it but kept the idea intact, although in a very raw format.

— So with the current team, the plan got revived. A framework that is long term, creditable, suitable for all kinds of audience, has been made.

Aim?

— To document the Ecology in and around the Campus, as well as to document the places where the Eco club makes field trips, including the birds, plants, climatic and environmental conditions as of now, which may extend to cover moths, insects and other small organisms.

— To make the formed material both knowledgeable and casual readable type, targeting a large audience from all the levels, starting from junior grade students to senior researchers.

— To promote scientific and creative writing for ecology and environment among the students of IISER Berhampur, which has been later aimed to make into a hub for other students as well.

Some stats about the things in Oasis Inventory :

- We have images of 24 different birds, [possibly more]

 (which will be verified after the 2nd round of bird identification, from the local place where Oasis conducts field trip. We are pretty sure that they are the regular birds who visit our campus. Apart from that, places inside the campus are being covered for more images.)
- 2. We have bird images from Mangalajodi Wetland which is in the backwaters of Chilika lake.
- 3. One of our members has listed the exotic plant and moth varieties which they found inside campus, with the systematic positioning of the species identified (not fully sure as they have used an online identification model for it).

Apart from these biological lives, the campus location of IISER Berhampur is in such an ecologically sound environment that we can have a long term biological analysis model, possibly including the use of NGS. The climatic condition is also very dynamic with visibility of all kinds of weather.

The format of Ecopedia —

- 1. We have discussed to have it in multiple formats[3], which includes
 - Formation of Electronic catalog following The International Biodiversity Standards.
 - In a Scientific Analysis format with "comparative analysis of its distribution in its endemic locations with its distribution in the environmental conditions of this locality" as unique part, that maybe formatted to be a peer reviewed article, or targeting publishment in a magazine at least, but in a scientific format.
 - The third one would be in the form of Casual Read Magazine, having colourful graphical representations, maintaining all the scientific information and data from the 2nd format.
- 2. The above formats will be used for all the divisions we are aiming to cover, modifications are subjective to the different branches.
- 3. We are aiming to have these released in Volumes and Issues since we are unable to gather all the information in the first attempt, the approach would be documenting facts and details with pictures as the bases.

Manner of writing -

- 1. Aiming to be exactly like a research/ peer reviewed article??
- 2. A scientific approach in analysing the pre-existing research materials regarding the subjected species will be followed before making the compilation.
- 3. References for the mentioned things will be given in the compilation as well.

Authorship, credits and reference management ----

- 1. Each member as an analyst and a writer will follow a format collectively made from a discussion followup, we have the regular oasis team along with another team formed specifically for Ecopedia.
- 2. Each contribution will be marked with the contributor to it and proper credits and authorship will be given wherever the compilation gets displayed.

3. In the upcoming new website [under planning] each member, whether they belong to in-team of



Compiled and recorrected at 17:50, 24th August 2023 last time by Prajna Samriddhi Panda and Subrat Mallick, from the multiple discussions held in the active presence of Oasis members.

oasis or not, when they contribute to an extent, will have an authorship page where all their minor to major activities will be displayed respectfully. A raw format from the discussions has been made, please find in next page —

The Content Index for "wingers" - the birds version of Ecopedia, for the other organisms, the format will be similar.

- preface
- copyright authors about wingers series and oasis about the volume and issue
- introduction
- Terminologies and recognisation methods
- small sized birds
- medium sized birds
- large sized birds
- birds, life, nature, science, culture and tradition
- bird migration
- bird watching
- field work information
- socio economic scientific psychological importance of birds
- references & citations
- species wise index
- thanksgiving

Detailed Raw Pages can be founded here —

https://www.canva.com/design/DAFrOOAWIfc/pXz_8erl2-nKAVW6WvhlDA/edit?

<u>utm_content=DAFrOOAWIfc&utm_campaign=designshare&utm_medium=link2&utm_source=shar</u> <u>ebutton</u>

- One detail bird page will be having these informations —
- A. Capture information, date and time of capture geo coordinates capture information any editing record
- B. Normal data -
 - 1. Bird name
 - 2. Scientific name
 - 3. One special and/or important or distinguishing feature
 - 4. Scientific position
 - 5. Lifespan
 - 6. Climate requirement
 - 7. Food preference and some other related information To be added
- C. The main body content —
- -- introduction lets meet [bird name]
- -- physical appearance compare between small medium and large
- -- how to identify this one + confusing other ones
- -- which type location to find this
- -- mating, birth, relation with other species

global

scientific significance globally where is it found mostly, which nation, state etc socio - economic value at global level migration global threats and solutions any interesting event from history local significance cultural values scientific values in local level relation with the species here what might be the reason behind their preferential citation here emmigration / immigration socio - economic value local threats and solutions any events in local / national level

analysis - global vs local

If the single page of a bird is given interest, it may look like this —

Clause addition, 17th September evening 7:20 PM

The new addition to the previous format is the biologist would be covering up the birds treat and information whereas for the comparison purpose of the birds life with the ecosystem and environment, the ecological team would be comparing metrological information about this location grades to the requirement of the birds specific treat so that we can make a pinpoint on the metrological graph of say of 50 years. We can then guess a point where the species of birds so this place to be appropriate for their living and from that is they have been living in this location.

Conduction of birding in such a manner that we can cover different birds species in different season and different timings. We can figure the maturation phase of the concerned one from the visual that we capture. — have to make a calendar - clause to Oasis 365.

_____ for the magazine - add a section as "unidentified or upcoming" - ask from the readers about submission of the writeup

____ for the magazine - we can publish two, one normal and one special edition, the special edition can have things like game, arts, puzzles, qr codes for sounds, 3d prints etc.

QR Codes for High-Quality Images: Within the magazine, you can strategically place QR codes alongside the bird descriptions and images. These QR codes, when scanned with a smartphone or tablet, will redirect readers to high-quality images of the birds. This allows readers to examine intricate details of plumage, features, and behaviors that might not be as clear in the printed format.

Bird Sounds and Calls: For an immersive experience, include QR codes that link to audio recordings of bird sounds and calls. Readers can listen to the melodious songs, calls, and vocalizations of the birds described in the magazine. This not only provides an auditory connection but also assists in bird identification by their distinctive calls.

Video Clips: Some bird behaviors, such as courtship displays or feeding habits, are best understood through video. Include QR codes that direct readers to video clips showcasing these behaviors. This multimedia approach brings the birds to life, allowing readers to witness their actions in their natural habitat.

Interactive Maps: QR codes can also be linked to interactive maps showing the geographical range of each bird species. Readers can explore the regions where these birds are commonly found, which contributes to a better understanding of their habitat and distribution.

3D Models: Consider creating 3D models of certain birds, highlighting their unique features, and link QR codes to these models. This can be particularly beneficial for illustrating anatomical adaptations or plumage patterns.

Augmented Reality (AR): If your publication has an online component, you can explore AR technology. By scanning a QR code, readers can use their smartphones or tablets to superimpose digital information, animations, or 3D models onto the printed pages, providing an interactive learning experience.

Behind-the-Scenes Videos: Offer readers a glimpse into the making of Campus Ecopedia by incorporating QR codes that redirect to "behind-the-scenes" videos. These videos can showcase the fieldwork, data collection, and the passion of the Oasis Eco Club members.

Species Conservation Insights: QR codes can link to multimedia content about the conservation efforts and challenges related to specific bird species. This can raise awareness about the importance of protecting these birds and their habitats.

Educational Tutorials: For educational purposes, provide QR codes that link to tutorials and resources related to bird identification, birdwatching techniques, and ecological fieldwork. These resources can be valuable for students and enthusiasts.

see some things are there which can't be written in scientific paper - such as

socio-psychological impacts - which is a social myth believed since a long time + some science hypothesis or some science thing which nature doesn't express all the time

eg- some flowers bloom in such a time ki rain comes, peacock before rain, crow makes u awake in the morning, migratory birds describe season change too,

these links with the science as

environmental parameters bring the change, which result in the environmental effect + the same thing makes the organisms to do their event

not everything occurs everytime, nor properly proven by science,

but

think about those people who do exist in some location who don't know the meterological reads but they can say when to stepout for agriculture

not everything can be captured by a traditional scientific paper, and there's value in exploring sociopsychological impacts and observations that are deeply rooted in local knowledge and experience. Here's how you can incorporate these aspects into your magazine component:

- **Socio-Psychological Insights:** Dedicate sections of the magazine to explore the sociopsychological impacts and local beliefs related to birds and nature. Share anecdotes and stories from local communities, highlighting how certain bird behaviors or natural events are tied to social customs, myths, or rituals. This adds cultural richness to your content.
- **Hypotheses and Local Wisdom:** Include sections that present hypotheses and local wisdom. For example, you can discuss the hypothesis that certain bird behaviors or environmental changes are interconnected and explore the implications of these hypotheses.
- Environmental Parameters: Create content that bridges the gap between local observations and environmental science. Explain how local observations align with broader environmental parameters and natural processes. This helps connect traditional knowledge with scientific understanding.
- **Noteworthy Anecdotes:** Share interesting and unproven bird-related anecdotes that have been passed down through generations. For example, you can discuss how people in specific regions rely on bird behaviors as indicators for activities like agriculture.
- **Engage the Community:** Encourage your readers to share their own experiences, stories, and hypotheses related to birds and nature. This can foster a sense of community involvement and contribute to a richer understanding of the local environment.
- **Involve Experts:** While the magazine may include unproven or anecdotal content, it's essential to consult experts or scientists who can provide insights and context. This ensures a balanced approach that respects local wisdom while upholding scientific integrity.

By incorporating these aspects into your magazine, you create a space where both traditional knowledge and scientific understanding coexist. This can make the Campus Ecopedia more relatable and inclusive to a broader range of readers, including those who may not have a scientific background but have a deep connection to the local environment.