



# Dark Sky Ecotourism

An Erasmus + KA2 funded  
project

[www.darkskecotorism.eu](http://www.darkskecotorism.eu)



Co-funded by the  
Erasmus+ Programme  
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# Structure of this talk

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- About our Tourism Innovation Research Group
- What is Dark Sky Ecotourism and why is it important
- Our project outputs
- A sample activity

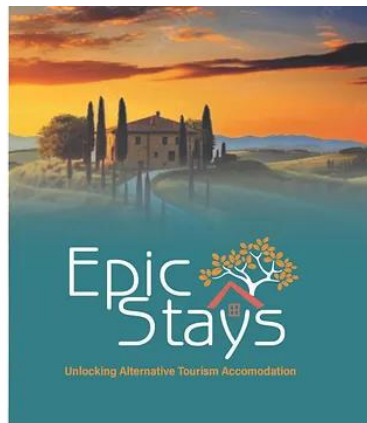




# Our Projects – leading, partnering and supporting



REGIONAL ENTERPRISE PLAN  
**MIDLANDS**



# Sample Project: Dark Sky Ecotourism 2021-2023

## What is Dark Sky Ecotourism?

- Observing the night skies have inspired people since the time of antiquity.
- Today, interest in the night sky is growing, e.g. with astronomy, adventure tourism, wildlife watching, and astro-photography.

## Why is it important?

- Global light pollution is growing at c10% every year
- Light pollution impacts negatively on carbon emissions, biodiversity, human health



Erasmus+



# What is Dark Sky Ecotourism?

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- Dark Sky Ecotourism involves tourism at rural sites with low levels of light pollution
- Activities could include, for example:
  - Star gazing
  - Astrophotography
  - Wildlife watching
  - Adventure activities
  - Storytelling & folklore







# Why is Dark Sky Ecotourism interesting and important?

- Light pollution is increasing at 10% a year
- 99% of European population cannot see the night sky clearly
- Light pollution has a negative impact on:
  - Human health
  - Biodiversity
  - The economy

# What is this project about?

This applied tourism industry research project is a cooperation between partners from Ireland, Iceland, Italy, Portugal and Denmark.

The project focusses on developing dark sky ecotourism destinations, through SME and vocational education and training (VET).

Dark sky ecotourism capitalises on the frugal resources of the night sky and has positive benefits for rural tourism businesses, biodiversity and conservation, local authorities (e.g. by reducing light pollution and lowering costs) and for tourists by offering a novel, sustainable tourism experience.



# Why do dark skies have rural tourism potential?

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- Needs very little investment & money saving
- Good for rural communities
- Good for human health
- Activity potential – biodiversity education, photography, night activities – e.g. kayaking, yoga, camping.

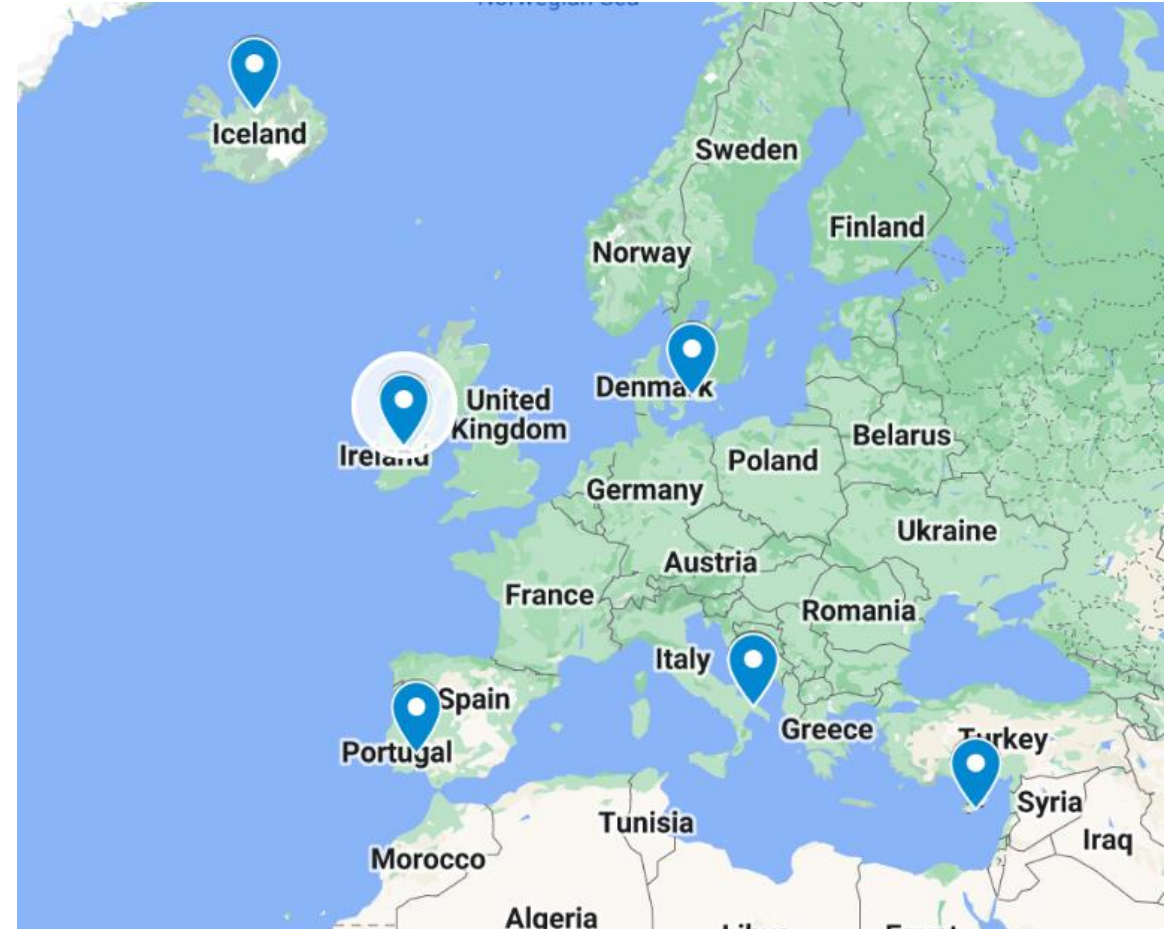




# Who is involved?

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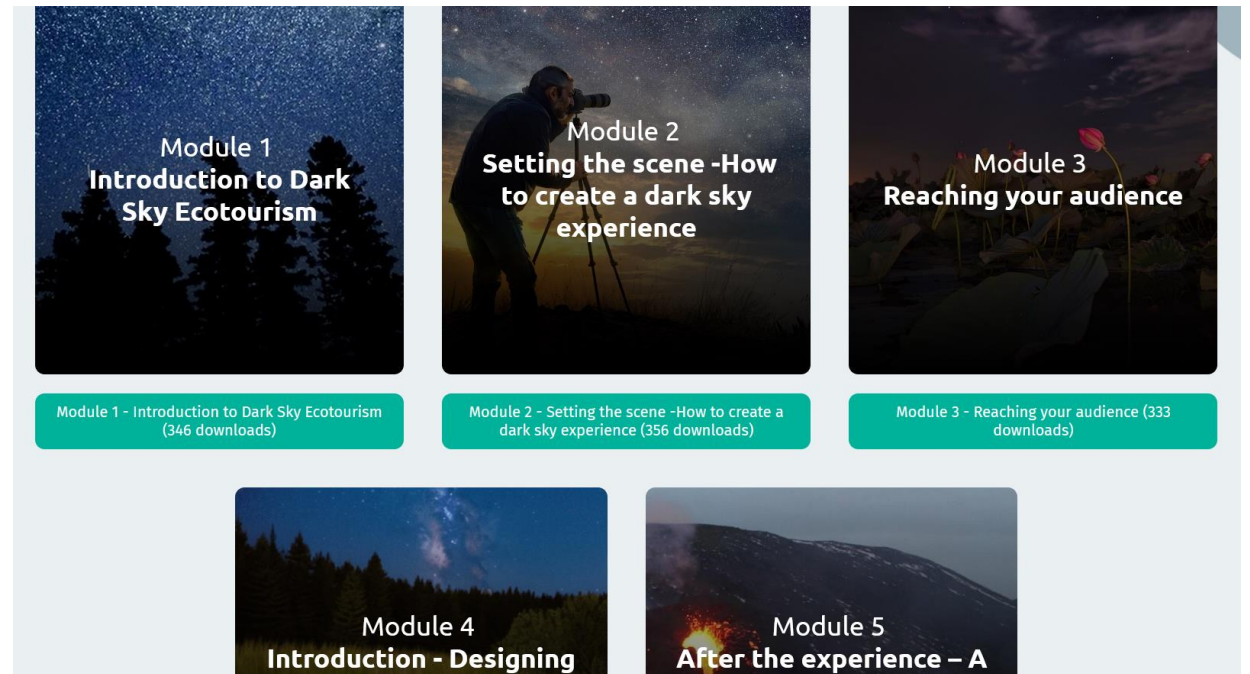
- Kjartan - Environmental impact assessment, Holar (Iceland)
- Grace, Albie & Mark – Project Management & Technical aspects, Momentum, Ireland
- Luigi – Architect, Meridaunia (Italy)
- Tony – Ecotourism, TUS (Ireland)
- Canice and Kathy – EUIEA, Project Management & Technical aspects,
- Clara - Environment and community education, ADC Moura (Portugal)



# What were the outcomes?

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- A vocational education and training programme with rich teaching content
- Support for businesses in getting involved in dark sky ecotourism
- A mobile application
- A website
- Case studies on good practice
- Multilingual content
- Multiplier events





# Dark Sky Ecotourism

## RESULT 01

### **Dark Sky Ecotourism Guide**

Dark Sky Ecotourism provides a guide for tourism businesses, education providers, including our partners, as well as for tourism ecosystems and wider stakeholders. The objective of the Guide is to introduce the concept of Dark Sky Ecotourism and the opportunities it presents.

## RESULT 02

### **Dark Sky Audit and Ecotourism Assessment Tools**

The Dark Sky Audit and Ecotourism Assessment Tool is designed to achieve widespread use and impact. It includes a set of two online, Ecotourism checklists, which enable our users to evaluate their location and capacity and self-assess if they well positioned both in terms of location and current skills levels to become dark sky ecotourism promoters.

## RESULT 03

### **VET Programme: Developing Dark Sky Ecotourism Products, Services and Destinations**

Dark Sky Ecotourism's VET Programme will focus on how to create new/alternative dark sky ecotourism products, services and destinations which play to geographical strengths and make best/ most environmentally friendly use of natural resources.

## RESULT 04

### **Dark Sky Ecotourism Apps**

Our mission is to educate people about apps that will provide rural/ remote tourism business owners wider communities, individuals, and European tourists with informal bite sized learning opportunities on topics related to dark skies such as astronomy, light pollution, ecotourism, rural/remote life on Europe, natural tourism, night tours, nocturnal safaris and much more.

# Dark Sky Ecotourism

Google Play Games Apps Movies & TV Books Kids

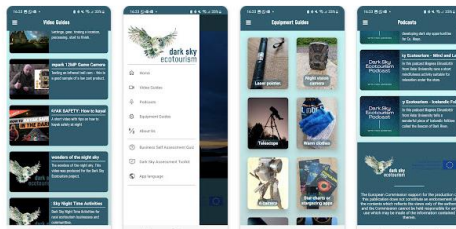
## Dark Sky Ecotourism

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### Þrjár hugmyndir um ferðabjónustu í dreifbýli

Áhættumat fyrir kvöldstarfsemi. This video was produced for the Dark Sky Ecotourism project. The Dark Sky Project aims to empower training bodies...



### Að meta næturhimininn Leiðbeiningar fyrir lítil og meðalstór fyrirtæki og ...



### Valuing the night sky

Valuing the night sky. This video was produced for the Dark Sky Ecotourism project. The Dark Sky Project aims to empower training bodies and business...



### Dark Sky Night Time Activities

Dark Sky Night Time Activities for rural ecotourism businesses and communities. This video was produced for the Dark Sky Ecotourism project...



### Dark Sky Risk Assessment

Risk assessing your night time activities. This video was produced for the Dark Sky Ecotourism project. The Dark Sky Project aims to empower training...



# Night activity

Viewing and identifying  
insects at night



# What is the activity?

This is a simple night-time activity for which you will need only some very basic equipment and skill level.

It will allow you to show local insect life to your visitors.





You do not need any prior knowledge to run this activity. You will learn as you go and develop new knowledge.

The activity allows you to attract insects to a viewing location and is a simple way to engage younger visitors.

You need:

- 1) A bright light
- 2) A large, plain white bedsheet (or large sheet of paper)
- 3) Some twine
- 4) A location to hang the sheet



## Step by step: what to do



1. Bring a white sheet to a dark location.
2. Attach the sheet so it is wide open between two trees/ poles/ other similar objects. It could also be on the ground. You can see an example in the picture. The brighter the light the better.
3. Shine a bright light on to the sheet.
4. This should attract insects to view.





## What to do when insects land on the sheet?

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- Practice this first without any visitors if needed.
  - Look at what insects have landed on the sheet. You may recognise some already.
  - Next, using a website/ mobile app/ book see what else you can identify.
  - Memorise some of the most commonly occurring insects/ write them down and keep the list to hand.
  - You can then explain to your visitors what insect life is in the region and how it interacts with local ecology.



## What happens if no insects land on the sheet?

Don't panic if conditions don't work out one night. You can still easily educate and entertain your guests about local ecology even if conditions don't cooperate. Here are some ideas of what you could do:

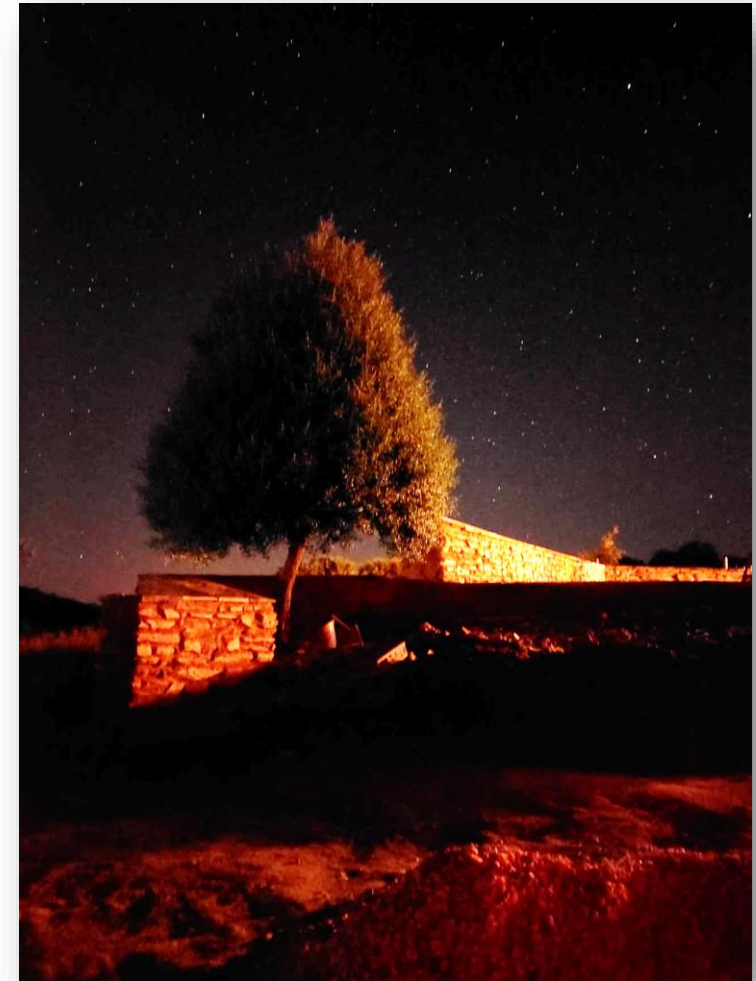
You could play insect videos or sounds on your phone and ask younger guests to mimic insect actions or sounds.

Learn some basic local ecology so you can explain to your guests what insects are in the region (e.g. species of butterflies, moths, spiders, etc)

# What happens if no insects land on the sheet?

You could purchase some insect samples and bring them with you to show guests (e.g. displayed in glass casings – these are easy to purchase online from major retailers).

You can might be able to purchase a game/ wall chart showing different insect species and bring this with you as backup





# How are we making change in the region?

- Improving business sustainability
- Trying to influence people in powerful positions
- Talking about it to the community
- Educating the general public with media content

The screenshot shows the Athlone Advertiser website. The top navigation bar includes links for News, The Week, Property, Motoring, Business, Sport, and Life. Below this, there are links for Classifieds/Small ads, Publications, and a red Subscribe button. The main article is titled "Gold star potential in dark sky ecotourism, claims TUS Athlone academic" and is dated Thursday, February 02, 2023. The author is Ronan Fagan. The article text discusses the potential of dark sky tourism in the Midlands region, mentioning Dr. Tony Johnston from Technological University of the Shannon: Athlone Campus. A quote from Dr. Johnston is provided, along with a partial quote at the bottom. On the right side, there is a green placeholder for an image and a social media widget for the Athlone Advertiser Facebook page, which has 7,667 followers.

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## Gold star potential in dark sky ecotourism, claims TUS Athlone academic

Athlone Advertiser, Thu, Feb 02, 2023

RONAN FAGAN

The Midlands region offers vast potential to capitalise upon dark sky tourism, a Director of Research Development in the Faculty of Business and Hospitality at Technological University of the Shannon: Athlone Campus, has stated this week.

Speaking to the Athlone Advertiser, Dr Tony Johnston, noted the popularity of dark sky tourism on a global scale, its benefits for ecological protection and restoration and referenced locations within the Midlands region which offer potential in this regard.

"Dark sky ecotourism describes rural tourism which takes place at night, outdoors, under clear skies, which have low levels of light pollution. It is a form of tourism which can have strong benefits for ecological protection and restoration, as artificial light is damaging for nocturnal species and insect life.

"Dark sky tourism is very popular across the world, with notable attractions in the south of Portugal (Dark Sky Alqueva ) and across much of

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