

MODULE CODE: M2X9622
MODULE TITLE: HABITAT SCIENCE

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1. Critically analyse how Covid-19 has impacted global wildlife.

Slide Plan:

- Funds diverted
- Borders closed – projects on hold and enforcement difficult
- Increase in poaching
- Surveys halted through lockdown
- Planning and development laws relaxed to rebuild economy
- Movement of animals to 'lockdown quiet spots' – what happens when life returns to normal?
- Money spent on feeding wildlife affected vs increase in charitable donations
- Disposable masks thrown away
- Re-focus in environmental damage
- Re-connecting with nature
- Wet markets
- Reduction demand for traditional medicines
- Reduction pollution

In 2020, the world went into lockdown due to the propagation of the Covid-19. A respiratory illness that causes most people to be hospitalized and monitor carefully and with utmost precaution, with the help of respiratory devices. Unfortunately, during the pandemic the world faced and still facing many challenges, difficulties, highs and lows situations due to the virus. During this period of the confinement of people resulted in fearful circumstances which led to inestimable insights between earth-born and wildlife interactions.

There have been uncountable remarks indicating that nature has reacted to the lockdown, uncommon behaviours from wildlife in different places and countries around the world, not only have more animals appeared than normal, but also visitors in urban and suburban areas (Christian Rutz, 2020). Wild animals have instinct of presence, humans presence and prey,

as soon we got back to normal, they'll go back to their habitat as there will be the normal or increased movement than they've been experiencing since Lockdown. For most of the species there's have been new outdares that might fight against hunger, since everyone was confined in their homes, there's lot of animals that rely on the remains of food from humans. Just as there were those people who took advantage of the moment and the situation to practice illegal hunting and harassment of animals, which put certain species in danger and threatened with extinction such as rhinos and raptors.

With the economic blockade, closed borders, paralyzed projects and unattended animals, in a way there was a relaxation for the search for solutions and the revival of the economy and return to the projects, a small effort was and is being made by the leaders so that wild animals are rewarded and assisted, and it is very easy to say that we really must bet and change the way we live with a more sustainable life, from houses, factories, cars , more sustainable cities, and how it will be when we get back to normal since it was experienced a year with a great reduction of pollution in our environment, and how the wildlife behaved or reacted to it, that is, how the wildlife reacted to the absence of so much of the humans in its midst, the absence of hunting, the absence of pollution, waste, from the noise, from the confusion, we must ask ourselves why we give so little value when we think we are doing well, in fact we harm ourselves as much as them (animals). The focus is as much on how it can be on a wildlife, our security, care and prevention of the virus can be an alert to connect us to nature and the damage caused by ourselves. Overall, we learned to see what's ahead of us, and the wildlife had to experience a moment without humans around .

Then again, the "normal life" is coming back, and another main topic are the 'Disposable Face Masks' being thrown away mainly by hospitals, the incentive that should and deserves to be mentioned over and over again, with regard to the safety and protection of animals and the environment.

Notwithstanding, the frustrations and the temporary nature of the current respite for wild animals, the jokes of creatures out and about as reasons to remain sanguine about wildlife conservation. "It is a testament to the fact that animals are often incredibly resilient and flexible,". "It gives me hope that they can bounce back from human disturbance" (Goldman, 2020)

2. The UK has experienced significant changes in weather patterns over the last few decades. Evaluate how effective management of upland peat bogs might contribute to better flood management.

The protections, use and management of the soil must be grounded, first, on its productive potential. It is necessary consider the proper soil management, its physical, chemical and biological properties.

- **Physical Properties:** Structuring; Water Retention; Aeration; Compacting.
- **Chemical Properties:** Reaction between them; Availability of nutrients; Soil reaction.
- **Biological Properties:** Nitrogen biomass; Respiration; Colonization rate and species of microorganisms; Content of organic matter; Carbon biomass.

The protection of the soil against the impact of raindrops, the conservation or increase in the tenor and quality of organic matter and the saving of the water stored in the soil are the factors to account when selecting a soil management system. Making sure that, a good soil management has to be able to provide a good productivity at the present time, guaranteeing agricultural production in the future and that makes possible to maintain its fertility.

In the U.K, part of the national network of blanket bog covers 10% of the land surface which they take place in the most high and wet parts of the country, at risk of flooding as much of the rainwater passes through and over them, they have a meaningful impact on the velocity with which the water reaches the communities. Having an impact on homes, communities and human health and wellbeing, flooding costs the UK at least £1 billion/year and has a meaningful impact and enriching the condition of the upland habitats is a powerful and practical way to reduce flood risk at the source.

This is the result of many factors including changes in land-use, a growing population and also climate change. There are currently 5.2 million properties at risk of flooding and currently flooding costs about £1.1 billion annually and it's rising each year too (Library, 2014).

According to the Moors LIFE project, Blanket bogs has an important role in the process of the more the flow of water is slowed at source, less opportunity there will be of flooding below. The best way to face flooding is to observe the entire landscape.

The organic matter or humus in the soil, plays a fundamental role for plants and for the soil: it acts as a cement that makes the union between soil particles, forming aggregates. These are important because they make the soil more porous, improving and increasing the infiltration of rainwater and irrigation in the profile, and consequently, reducing the amount

of water that goes with the runoff. Stable aggregates also increase soil resistance to the impact of raindrops. As a result, it will be more resistant to erosion. Organic matter is also important to increase the cation exchange capacity, which is the capacity that the soil has to store nutrients for plants, such as: calcium, potassium and magnesium. In addition, organic matter is capable of providing nitrogen, phosphorus and sulfur for plant nutrition.

References

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COVID-19 lockdown allows researchers to quantify the effects of human activity on wildlife.

Nature Ecology & Evolution; 22 June 2020

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