Etapa 2 - PPGECB 2024.1

Prova escrita de conhecimentos em língua inglesa.
LEIA ATENTAMENTE AS INSTRUÇÕES
1. A prova terá 2 horas de duração.
2. Leia atentamente o texto em inglês e responda a todas as perguntas em PORTUGUÊS ou ESPANHOL.
3. Digite o número de seu documento de identificação para prosseguir com a prova.
BOA PROVA!

* Indica uma pergunta obrigatória

1. Email *

2. Preencha atentamente seu CPF ou Passaporte. Essa é sua única identificação da prova. *

3. Nível pretendido *

Marcar apenas uma oval.

- ◯ Mestrado
- ◯ Doutorado

Baseado no seguinte texto *"Plan to allow wolf hunting in Europe to spare livestock could backfire, some scientists say: Many farmers support proposal to downgrade protection of wolves, which kill thousands of sheep on the continent each year"*, responda as cinco primeira questões**.** Texto adaptado de: https://www.science.org/content/article/plan-allow-wolf-hunting-europe-protect-livestock-could-backfire-some-scientists-say

Far from being confined to folk tales, wolves in Europe are startlingly plentiful today. Now, governments want to reduce the numbers to protect livestock, sparking debate—with scientists caught in the fray. Late last month, the European Commission released a proposal to weaken protections for wolves living in the 27 nations of the European Union, drawing criticism from environmental groups. Just days later, environmentalists persuaded a court in Switzerland, which is not a member of the EU, to partially block a new government plan to kill up to 70% of the nation's wolf population.

After centuries of hunting, only small and scattered populations of wolves survived in Europe by the 1970s, but recent studies estimate some 20,000 animals now roam the continent. The rebound is largely due to protections provided to wolves and other large carnivores under the Berne Convention on the Conservation of European Wildlife and Natural Habitats, a 40-year-old conservation agreement. As the number of wolves has increased, however, so has predation on domestic livestock. Every year wolves kill 65,000 farm animals, mainly sheep, according to the Commission. Although this amounts to just 0.07% of the continent's sheep, farm groups across Europe have lobbied officials to weaken rules against killing wolves. The problem is that although the comeback of wolves is good news for biodiversity in Europe, the concentration of wolf packs in some European regions has become a real danger.

On 20 December 2023, the Commission responded by releasing a proposal to downgrade the wolf's protection status from "strictly protected" to "protected." The change would allow EU nations to cull wolves at scale for the first time in 4 decades, although countries would still be obligated to ensure that wolves maintain a "favorable" conservation status. Each nation would decide its own culling quotas, time frames, and culling methods, which supporters of the plan say will make it easier to keep wolf populations at healthy but more manageable levels.

Many environmental groups have criticized the plan. In an open letter, some 300 organizations including the World Wildlife Fund and Rewilding Europe accused the commission of soliciting anecdotal evidence on the impact on wolves during an "irregular" consultation process, rather than gathering reliable scientific data. WWF researchers are concerned that the discussion of this issue has so far been largely dominated and driven by farming industry and hunting interest representatives. Unless there is substantial new science-based

evidence gathered by the European Commission services, we believe the science and public opinion are clear: the modification of the protection status of the wolf is not justified.

Some scientists agree, pointing to a lack of evidence that culling actually reduces predation on sheep. Implementing selective culls would be expensive, and in most cases ineffective. Killing wolves and breaking up packs could actually make the problem worse, because domestic livestock make an easy meal for a wolf that is lost and alone.

The culling policy must be taken at a regional perspective, not in a country perspective. Scientists and environmentalists have expressed their misgivings about Switzerland's wolf cull. In a November open letter, conservation groups wrote that the country's "radical" measures to reduce the wolf population by up to 70% could threaten the species' survival not only in Switzerland, but also in nearby regions of the Alps. Last month a court ruled that ongoing culls in particular cantons must be suspended while it considers a legal challenge brought by environmental groups; according to the most recent data, 32 wolves have so far been killed out of a total population of about 300.

The EU's proposal still needs to go through a protracted process before becoming law. Among other steps, any change to wolves' conservation status will need unanimous approval from all 27 EU member states.

4. 1. Como era a situação dos lobos na Europa na década de 70? A situação mudou nas últimas décadas? Explique *

5. 2. Segundo o texto, que tipo de problemas um aumento na população de lobos pode causar? *

6. 3 - O que pode acontecer se for alterado o “status” de conservação da espécie? *

7. 4 - Existe consenso sobre a atual situação de conservação dos lobos? Explique. *

8. 5 - O que aconteceu na Suíça em relação aos lobos? *

Baseado no seguinte texto *" Can foreign coral save a dying reef? Radical idea sparks debate: Devastation brought on by climate change and other threats prompts a last-resort proposal to rescue Caribbean corals"*, responda as próximas cinco questões**.** Texto adaptado de: https://www.nature.com/articles/d41586-024-00102-y

Corals in the Caribbean have been dying off for decades — and a devastating heatwave there last summer made matters worse. Researchers are now considering something that was once unthinkable: is it time to give up on native species, and transplant hardier corals from other oceans to struggling Caribbean reefs? It is a radical proposal that could leave the region forever changed. But it is important to explore the possibility now, because the region's reefs are running out of time, as said by some coral specialists.

Coral transplantation would take decades to study and implement, and with each passing year, the Caribbean's bleached reefs will be at greater risk of erosion and collapse, destroying the rocky infrastructure on which the transplanted corals could take hold. Coral reefs enhance protection against coastal erosion and provide crucial shelter for young fish. But reefs in the Caribbean have been devastated by climate change, disease and pollution. By some estimates, corals in particular regions have declined by more than 80% in the past two decades. A prolonged and record-breaking heatwave last summer further raised the sense of urgency.

In the oceans of the Indo-Pacific region, many corals are continuing to thrive. Several coral species there are considered 'super-recruiters' because of how readily their larvae attach to and colonize reefs. Dominant coral species in the Caribbean, by contrast, are poor recruiters, hindering their ability to recovery from calamity.

As a result, it might be time to investigate whether transplanting these Indo-Pacific species to the Caribbean could be a way to reseed the reefs. Resilient species such as table coral (Acropora hyacinthus) could be better able to prosper in a challenging environment. But to many scientists that's an unpopular and painful proposition.

For years, conservation groups have focused on restoring barren reefs by planting thousands of young, native corals in the hope that they would flourish. For the most part, they have not. Coral populations have continued to decline, So, we either do something else, or we lose the corals.

But to bring in exotic species could spell the end of the native reef. Reefs composed of non-native species can provide some of the ecological services of native reefs, but they will not be Caribbean reefs anymore. Besides, it is unclear whether even the Indo-Pacific coral species could survive the pollution, heat extremes and diseases of the Caribbean. Furthermore, transplanted species could bring fresh diseases with them and could disturb the local ecology in unpredicted ways.

Some researchers argue that some steps could be taken to reduce disease risk, such as growing the transplants in the laboratory before introducing them to the open water. As for unpredictable consequences, he proposes that initial

field studies take place in areas where the introduced coral are unlikely to spread to other regions.

Nevertheless, such pilot studies would be anathema to current conservation approaches, and unlikely to be funded or permitted today. The main thing to do now is to start the conversation.

Other radical ideas that might be considered in the coming year or two include CRISPR genome editing of native species to make them more heat resistant, or treatment with microorganisms that might foster disease resistance. It will be a difficult choice: each of these ideas comes with risks to the natural ecosystem. The questions that arise now accomplish how far we can go and when we just give up.

9. 6 - O que está acontecendo com os recifes de coral no Caribe? O que está causando estas mudanças? *

10. 7 - Por que estes recifes são importantes? *

11. 8 - Que medida drástica vem sendo proposta para tentar reverter o problema? *

12. 9 - Porque esta medida é tão controversa? *

13. 10 - Segundo o texto, que tipo de estratégias poderiam ser usadas para reduzir os riscos destas intervenções? *