



SPECIFIC CONTENTS

- The recovery of the Iberian lynx stands out as a major conservation achievement, going from near extinction to 'Vulnerable' status.
- The impact of measures such as area protection, reintroductions, poaching prevention, roadkill mitigation and genetic management has reversed the decline in population and prevented a more than likely extinction.
- The IUCN is the global authority on the state of the natural world and the measures needed to safeguard it

SKILLS

- Competence in linguistic communication. Students must interact orally and in writing in a coherent and appropriate way.
- Competence in mathematics and science, technology and engineering. Competence in science involves understanding and explaining the natural and social environment, using observation, among other methodologies, to ask questions and draw conclusions based on evidence.
- Digital competence. Students will use digital technologies for learning in a safe, sustainable, critical and responsible manner.
- Personal, social and learning to learn competence. The proposed activities encourage students to manage time and information effectively, collaborating with others in a constructive manner.
- Citizenship competence. This helps students to show an active commitment to sustainability, in line with the Sustainable Development Goals set out in the 2030 Agenda.
- Entrepreneurial competence. Students are encouraged to train their minds to analyse and evaluate their environment, and to create and rethink ideas using imagination, creativity, strategic thinking and ethical, critical and constructive reflection.

OBJECTIVES

- Learn about the protection status of the Iberian lynx and what it means.
- Learn about the dynamics of the decline and recovery of lynx populations.

GENERAL CONSIDERATIONS

This worksheet is designed as an initial task, intended to spark curiosity and motivate students to learn more about the lynx. It is recommended for use when students already have some prior knowledge about the biology and issues surrounding the Iberian lynx, or as a first introduction to the topic.



DEVELOPMENT

Activity 1. Thinking routine. CSI: colour, symbol, image.

Based on the text “In 2002, the lynx population on the Iberian Peninsula was less than 100 individuals. Just over 20 years later, in 2023, the census indicated that the population was 2,021. These are certainly figures that give cause for hope,” the students will select three ideas that they find representative. They will represent one of them with a colour, another with a symbol and another with an image. They will then share their ideas and explain why they chose to represent them in that way.

Activity 2. Key questions.

The following questions will be posed to the students:

Do you know what an endangered species is?

Do you know the name of any?

What is the IUCN (International Union for Conservation of Nature) Red List?

The questions can be stimulated through ICT searches, with the answers being recorded in different formats.

Activity 3. Vulnerable species close to us.

To conclude this introduction to protected species, students will be encouraged to search for the status of some endangered species of fauna or flora in their area (<https://www.iucnredlist.org>), including the Iberian lynx, and to indicate the status, trend or threats to each of them. It is very practical to use the advanced search on the website to select an area on the map, which will return the protected species in that area, allowing us to see how the results change depending on the geographical scale.

Activity 4. With scientific criteria.

The declaration of a species as endangered involves thorough scientific research. We propose that students become part of the IUCN research team by preparing a report on the status of the species. To do this, they can consult the available data from the lynx census (<https://lifelynxconnect.eu/censos/>), the current distribution of the species and the causes that have led to the decline in populations, analysing whether these causes continue to be a threat. The result of this report can be presented in different formats: mind map, digital presentation, oral presentation, etc.

FURTHER INFORMATION

- IUCN Red List: <https://www.iucnredlist.org/>
- Lynx population census: <https://lifelynxconnect.eu/censos/>
- Lynx bibliography: <https://lifelynxconnect.eu/bibliografia/>
- The conservation history of the Iberian lynx: <https://www.youtube.com/@lifelynxconnect>
- Ex situ conservation of the Iberian lynx: <https://www.miteco.gob.es/es/biodiversidad/temas/recursos-geneticos/conservacion-exsitu/ce-exsitu-programa-lince.html>
- Strategy for the conservation of the Iberian lynx: <https://www.miteco.gob.es/es/biodiversidad/publicaciones/pbl-fauna-flora-estrategias-lince.html>

ADDITIONAL ACTIVITIES

There are Endangered Species Recovery Centres in all regions covered by the LIFELynxconnect project. These types of facilities usually offer guided tours detailing their work, the species that arrive there, etc. It is particularly interesting.



Coordinador beneficiario:



Agencia de Andalucía

Asociación beneficiarias:





SPECIFIC CONTENTS

- Habitat characteristics of the lynx: structure, biotope, associated flora and fauna.
- Species distribution and changes in relation to its traditional habitat, particularly linked to the availability of food.
- Factors threatening the lynx's habitat. Habitat fragmentation as the main obstacle to the species' expansion.

OBJECTIVES

- To recognise the natural habitat of the Iberian lynx.
- To engage pupils in actively participating in its conservation.

GENERAL CONSIDERATIONS

The activities proposed in this worksheet are presented as a complement to the study of the ecosystems present on the peninsula. They may be addressed as a whole or incorporated into related teaching units. They may also be implemented following Worksheet 1, in order to complete the overview of the threats faced by the species.

DEVELOPMENT

Activity 1. Thinking routine: Compare–contrast.

As a starting point, this observation activity is proposed. It can be done individually, in pairs or as a whole group. Use an image of the lynx's main habitat (Mediterranean scrubland with granite outcrops, locally known as "berrocal") and, interchangeably, any of the other images provided as materials for this worksheet. Split a sheet of paper into two columns, noting in one the similarities (compare) and in the other the differences (contrast) between the two images.

Activity 2. Write your review.

This activity involves using imagination to put yourself in the place of a lynx and write a review of each of the ecosystems shown in the images provided. Each one is to be rated from 1 to 5 stars, with justification, indicating which elements of each ecosystem are or are not suitable for the species.

SKILLS

- Competence in linguistic communication. Students must interact orally and in writing in a coherent and appropriate way.
- Competence in mathematics and science, technology and engineering. Competence in science involves understanding and explaining the natural and social environment, using observation, among other methodologies, to ask questions and draw conclusions based on evidence.
- Digital competence. Students will use digital technologies for learning in a safe, sustainable, critical and responsible manner.
- Personal, social and learning to learn competence. The proposed activities encourage students to manage time and information effectively, collaborating with others in a constructive manner.
- Citizenship competence. This helps students to show an active commitment to sustainability, in line with the Sustainable Development Goals set out in the 2030 Agenda.
- Entrepreneurial competence. Students are encouraged to train their minds to analyse and evaluate their environment, and to create and rethink ideas using imagination, creativity, strategic thinking and ethical, critical and constructive reflection.

Activity 3. The fragmentation game.

In this game, pupils may compete in teams or pairs. One team represents humans, and the other represents a lynx. The grid provided shows four images in the outer corners. Two of these depict population centres, which the human team must connect, while the other two depict a lynx shelter and a rabbit, which the lynx team must take into account.

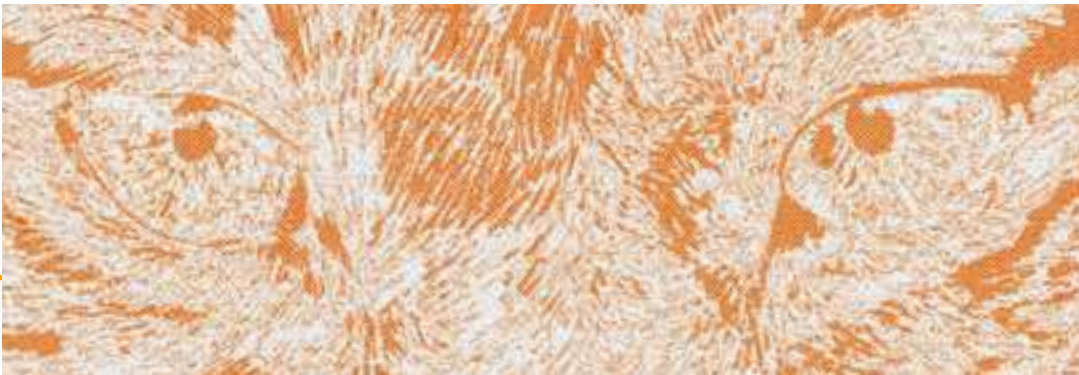
To achieve their objective, each team rolls the die and may mark as many squares as indicated, colouring them green for the lynx and black for the humans. These coloured squares represent, on the one hand, the route connecting the two population centres (road) and, on the other, the path followed by the lynx to reach its food from its shelter. Both routes may not occupy the same squares.

Once the route between the two population centres is completed, the human team's mission is over. However, the lynx team must complete an outbound journey to reach the food and a return journey to the shelter. This may, at times, make it impossible for the lynx to cross, being hindered or even blocked by the road.

When the game ends—either because the lynx completes its round trip or because it cannot do so—a discussion is held on the phenomenon of habitat fragmentation and how it affects species and their distribution.

MATERIALS

- Images of habitats: high mountain, Mediterranean scrubland with granite outcrop, olive grove with grassland, coastal lagoons, steppe (Annex I).
- Grid for Activity 3 (Annex I).
- Six-sided die.
- Green pencil and black pencil.



FURTHER INFORMATION

- LIFE Lynxconnect project: <https://lifelynxconnect.eu/>
- Article with multiple images of the lynx in its habitat (National Geographic): https://www.nationalgeographic.com/es/felinos/viaje/lince_15778

ADDITIONAL ACTIVITIES

Ideally, the activities proposed in this worksheet should be complemented with a guided field trip to the natural environment, where pupils can directly observe the characteristics of the Mediterranean scrubland as the lynx's preferred habitat. Including multisensory experiences during this trip (such as the smells of the Mediterranean scrubland, sounds, landscape interpretation, textures, etc.) enriches the experience and can serve as a starting point for further learning.

As an alternative to conducting this field trip, it is suggested that pupils watch a documentary. Recommendations include: WildMed. The Last Mediterranean Forest and Dehesa, the Forest of the Iberian Lynx.

The game from Activity 3 can also be extended with new rules and the introduction of a third team or player, representing species recovery teams. Under their supervision, for example, the lynx's route could be allowed to cross the road (similar to wildlife crossings).



Coordinador beneficiario:



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SPECIFIC CONTENTS

- Mammals exhibit a series of particularities in relation to their limbs, which allow them to be classified into three groups according to their posture: plantigrade, digitigrade, and ungulate.
- The adaptations of each species' footprint demonstrate how evolution selects the most efficient forms for the ecological niche occupied by each species.
- Characteristics of the lynx's footprint: shape, size, and differences compared to other felines.
- Factors threatening the lynx's habitat: habitat fragmentation as the main obstacle to the species' expansion.

SKILLS

- Competence in linguistic communication. Students must interact orally and in writing in a coherent and appropriate way.
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OBJECTIVES

- To recognise the tracks and signs left by the lynx on the ground.
- To understand the type of physiological adaptations indicated by the anatomical features imprinted in each animal's footprints.

GENERAL CONSIDERATIONS

These activities, together with those in Worksheet 4, are intended to develop general knowledge of the species and can be easily related to other aspects such as the distribution, ecology, and biology of the lynx, as covered in the common section of the booklet.

DEVELOPMENT

Activity 1. Thinking routine: 3,2,1 Bridge.

In this activity, the 3,2,1 technique is used: 3 thoughts, 2 questions, and 1 analogy or metaphor about the concept of "animal tracks", completed individually and in writing. Once the activities proposed in the teaching worksheet have been completed, pupils will complete another 3,2,1 with their final impressions. They will then share their initial and new thoughts, explaining to the rest of the group how and why their thinking has changed. It is essential to make clear at all times that their initial thinking is neither right nor wrong; it is simply a starting point.



Activity 2. Classifying footprints.

The mammal footprint sheets from Annex II are distributed among the pupils. Observing these images, they will be asked which part of the paw touches the ground when the animal walks and will attempt to classify the footprints into the three types mentioned in the content: plantigrade, digitigrade, and ungulate.

The activity can continue with two different proposals: on the one hand, trying to identify the species to which each footprint belongs; on the other, listing species of fauna that the pupils are familiar with from their local area and attempting to classify them within these three groups.

Activity 3. The magic shoes.

Students will be invited to imagine that they have three pairs of “magic animal shoes” that can change their feet to match different types of footprints, and to answer, with reasoning, the question: Which pair would you use for the following activities in the natural environment?:

- Picking fruits from the branches of a tree (plantigrade).
- Trotting among rocky outcrops (ungulate).
- Sprinting (digitigrade).
- Swimming (plantigrade).

MATERIALES

- Sheets with different mammal footprints: lynx, dog, bear, badger, human, cat, deer, wild boar, rabbit (Annex II).
- Images of lynx droppings and scratch marks (Annex II).



FURTHER INFORMATION

- How to make footprint casts: <https://www.youtube.com/watch?v=aC2eqmjdCBg>
- Memory game on tracks and footprints: <https://diario.madrid.es/cieacasadecampo/wp-content/uploads/sites/61/2021/04/Juego-de-memoria-rastrros-y-huellas.pdf>
- Diverse fauna workshop: https://www.miteco.gob.es/content/dam/miteco/es/ceneam/recursos/mini-portales-tematicos/Nivel%20%20Fauna%20Diversa_tcm30-171841.pdf

ADDITIONAL ACTIVITIES

Transversal skills can be developed through activities related to artistic expression, such as creating a mural featuring the diversity of footprints mentioned in the activities, or composing a message to celebrate an environmental event, such as Earth Day.

Making footprint casts is also particularly interesting. This is a very simple process in which plaster is used to capture the relief of an animal's footprint, allowing observation of its details.



Coordinador beneficiario:



Junta de Andalucía

Asociación beneficiarias:



Adenex



Añabasa



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Ministerio de Ecología, Transición Democática y Medio Ambiente



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SPECIFIC CONTENTS

- Ecosystems as dynamic elements, sensitive to changes in the composition and abundance of populations.
- The food chain in the lynx's habitat, including its role as a top predator and the rabbit as a key prey species for the lynx.
- How the presence of the lynx affects the maintenance of balance between producers and consumers.
- The importance of each link in the food chain and how the interconnection between them ensures the sustainability of the ecosystem.

SKILLS

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OBJECTIVES

- Understand the food chains that develop in the Mediterranean forest.
- Appreciate the fragility of their balance in relation to a specialist species such as the Iberian lynx.

GENERAL CONSIDERATIONS

The proposed activities fit perfectly into the study of ecosystems, biodiversity and interactions between living beings. Students will be able to apply the knowledge acquired in class about the food chain and apply it to the presence of lynx in a particular place.

DEVELOPMENT

Activity 1. Thinking routine. What would happen if...?

In this activity, students will be individually presented with different fictional situations, with the aim of gaining an initial understanding of how changes in the composition of the habitat can modify food chains. The following questions are proposed:

What would happen if...

- ...rabbits disappeared from a place with lynxes?
- ...there was an overpopulation of rabbits in a place with lynxes?
- ...lynxes were a species capable of feeding on a multitude of different prey?



Activity 2. A delicate chain.

The students will make a list of some of the species present in the lynx's habitat, both plants and animals. They will then establish the trophic relationships between them, identifying both the producers (plants) and the primary consumers and predators.

Next, they will analyse the impact on each element of this trophic network and on the interactions between them of certain interventions in the environment for which humans may be directly or indirectly responsible..

- Change in agricultural use.
- Construction of a new road.
- Introduction of a foreign species.
- Fire.
- Release of cats or dogs into the wild.

Activity 3. Debate.

A fictional situation is presented in which a public infrastructure project (e.g. a heavy goods vehicle road) is to be carried out in an area of high value for wildlife, within the territory of the Iberian lynx.

Working in groups, each will be assigned a role related to the situation: the promoter of the project, the owner of one of the affected farms, residents of the nearest town, technical or scientific personnel working on the recovery of the lynx, a local environmental group, etc. Time will be allowed for research into the position of each of the roles involved and to define the main points of argument for each group.

The activity should begin with approaches that prioritise personal interests. Teachers should try to bring the positions closer together by creating a climate of debate and argumentation that leads to a consensus and a viable project with the lowest possible cost and environmental impact.

FURTHER INFORMATION

- An example of how the presence of lynxes modifies the food chain: <https://www.csic.es/es/actualidad-del-csic/restaurar-las-poblaciones-de-lince-puede-reducir-la-abundancia-de-depredadores-pequenos-y-medianos>
- Ecology of the Iberian lynx: <https://lifelynxconnect.eu/ecologia/>

ADDITIONAL ACTIVITIES

A good way to adapt the activity to secondary school students and supplement it is to analyse how energy flows along the food chain. Adapting to their main prey can also be the starting point for analysing the case of other specialist species and working on the differences with generalist species.



Coordinador beneficiario:



Junta de Andalucía

Asociación beneficiarias:



Adenex



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Landscape 1: High mountains



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Landscape 2: Rocky terrain



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Landscape 3: Estepa



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Landscape 4: Coastal lagoon



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Landscape 5: Olive grove with grassland



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Lynx footprint



Dog footprint



Genet footprint



Badger footprint



Cat footprint



Wild rabbit footprint



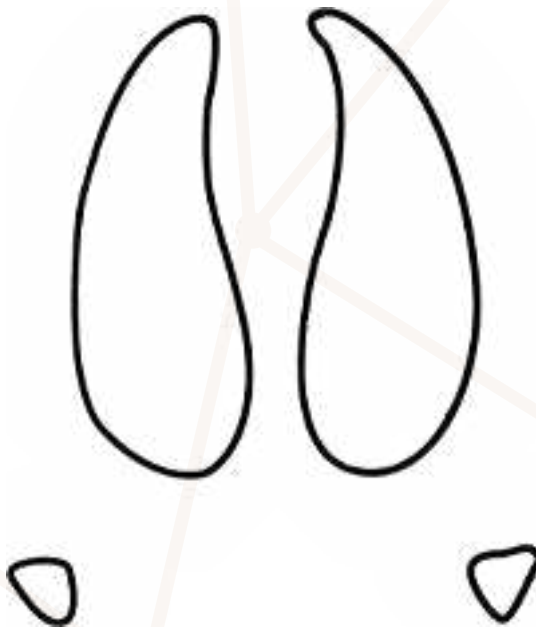
Fox footprint



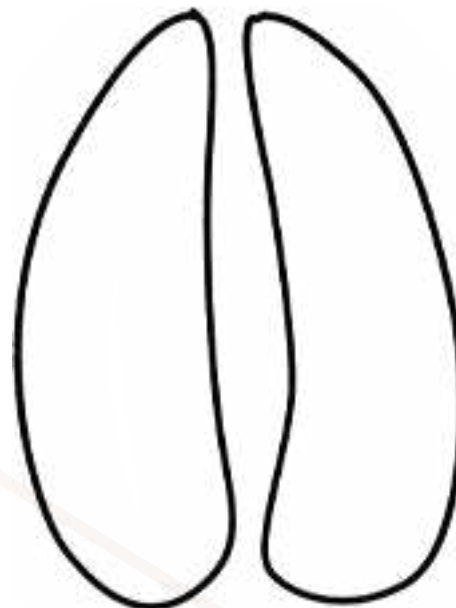
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Wolf footprint



Wild boar footprint



Deer footprint



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Lynx footprint



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Lynx droppings



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Latrine. Manuel Moral



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Signs of prey dragging