School for International Training | 1 Kipling Road, PO Box 676 | Brattleboro, VT 05302-0676 USA
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# Human-Wildlife Interactions

IDST-3064 (4 credits)

## Biodiversity & Conservation in Europe

*This syllabus is representative of a typical semester. Because courses develop and change over time to take advantage of unique learning opportunities, actual course content varies from semester to semester.*

### Course Description

This course investigates the evolving relationship between humans and wildlife in Europe's diverse ecosystems, with a focus on regionally grounded challenges and continental conservation frameworks. Using field-based learning across three key regions, students analyze how land use, urbanization, agriculture, and climate change influence biodiversity. Emphasis is placed on habitat fragmentation, species recovery, cultural and ethical dimensions of conservation, and broader, regional commitments to biodiversity protection and ecosystem restoration. Through comparative case studies and an applied simulation project, students explore innovative approaches to sustainable land management, ecological restoration, and community-centered conservation.

### Learning Outcomes

Upon completion of the course, students will be able to:

1. **Analyze** the ecological, social, and economic dimensions of human-wildlife interactions in diverse European contexts.
2. **Compare** wildlife management and conservation strategies across different European countries and ecosystems.
3. **Assess** the impacts of urbanization, agriculture, and tourism on native and non-native wildlife species.
4. **Apply** principles of conservation biology and environmental ethics to case studies involving human-wildlife conflict and coexistence.
5. **Interpret** patterns of species distribution and behavior in response to human-induced environmental change.
6. **Engage** with local stakeholders, including conservationists, policymakers, and community members, to understand regional approaches to wildlife governance.

### Language of Instruction

This course is taught in English.

**Instructional Methods**
SIT's philosophy of education is rooted in experiential learning model, which drives the design of this class. Each module allows for experience, reflection, and application. Experiences range from critical analyses of datasets to site visits and conversations with local experts. These experiences are framed by readings, multimedia texts, and class discussion. Reflection occurs throughout the learning process in various forms, such as verbal debriefs after learning on location experiences to reflexive components in papers/projects. Through reflection, students are encouraged to become aware of their process of learning, to make sense of their experiences, and connect the learning acquired on the program with previous experiences and information. Application activities reinforce learning by practicing communication skills, experimenting with theories, and preparing to transfer learning to future contexts.

**Required Texts**
- Articles on Course Reserve
- Stakeholder Simulation and Stratgeic Conservation Packet

**Assignments and Evaluation**

1. **Participation & Professional Engagement (10%)**
   Includes attendance, contribution to field discussions, cultural site visits, and group collaboration during workshops.
2. **Stakeholder Simulation and Strategic Conservation Plan (60%)**
   A collaborative, staged assignment where students simulate real-world conservation challenges based on human-wildlife interactions in each location. Students adopt stakeholder roles (e.g., local farmer, conservation biologist, tourism manager, citizen group) and work in teams to analyze and address a region-specific issue in each country.
   - Stage 1 (Week 2): Stakeholder Role Assignment & Regional Challenge Brief – 20%
   - Stage 2 (Week 7): Strategic Position Paper & In-Character Workshop – 20%
   - Stage 3 (Week 13): Group Strategic Conservation Plan & Individual Reflection – 20%

3. **Stakeholder Interview & Synthesis (30%, 3@ 10%)**
   Conduct and transcribe a semi-structured interview with a local expert or community member (e.g., farmer, conservationist, park ranger) at each program site, then write a synthesis connecting insights to broader course themes.

**Note on Attendance and Participation:** Due to the nature of this experiential program, full participation in all classes and program activities is required. Students may not voluntarily opt

out of required program activities. Valid reasons for absence – such as illness – must be discussed with the Program Director or other designated staff person. Absences impact academic performance, which may impact grades. Excessive, unexcused absences could result in program dismissal. Alternative work for absences will be expected.

**Note on Late Assignments:** IHP programs integrate traditional classroom lectures and discussion with field-based experiences, site visits and debriefs. It is critical that students complete assignments in a timely manner to continue to benefit from the sequences in assignments, reflections and experiences throughout the program. Extensions may be granted on a case-by-case basis with approval from the Program Director or other designated staff person. Requests must be made in writing and at least 12 hours before the posted due date and time. Students who do not submit their work within the extension period will receive a failing grade.

**Grading Scale**

| | | | |
|---|---|---|---|
| 94-100% | A | 74-76% | C |
| 90-93% | A- | 70-73% | C- |
| 87-89% | B+ | 67-69% | D+ |
| 84-86% | B | 64-66% | D |
| 80-83% | B- | below 64 | F |
| 77-79% | C+ | | |

**Program Expectations**
In order to make the most of the opportunities presented in program, communicate respectfully, prepare for student success, and demonstrate best possible engagement, SIT has the following expectations of students:

- **Content Considerations:** The texts and activities you will encounter in this course delve into sensitive topics that may be emotionally and intellectually challenging. Our classroom is a space where we can engage with challenging ideas, question assumptions, and navigate difficult topics with respect and maturity. As possible, I will flag content and activities that are especially graphic or intense, so we are prepared to address them soberly and sensitively. If you are struggling to keep up with the work or participate in the course because of the nature of the content and activities, you should speak with me and/or seek help from counseling services.

- **Learning Community:** Respect differences of opinion (classmates', lecturers, local constituents engaged with on the visits). You are not expected to agree with everything you hear, but you are expected to listen across differences and consider other perspectives with respect.

- **Presence.** Show up prepared. Be on time, have your readings completed and points in mind for discussion or clarification. Complying with these elements raises the level of class discussion for everyone.

- **Engage**. Ask questions in class. Interact with the lecturer. These are often very busy professionals who are doing us an honor by coming to speak.

- **Be Honest.** Comply with academic integrity policies (no plagiarism or cheating, nothing unethical).

- **Store Your Work:** Keep several copies of your work as back up and keep one copy accessible to you through an online forum, such as an attachment in your email, the course learning management system, or cloud-based storage. This way your work will always be available despite technical issues. Lost files, deleted drives, or computer crashes are not excuses for late, missing work.

- **Personal Technology Use**: Cell phones and other personal electronics can be used for taking notes and other class activities. Off-task usage is not acceptable, especially during a guest lecture or presentation from a peer. You may be marked as absent for habitually using them for something other than classroom activities.

- **Course Communication:** Course documents and assignments will be posted on the learning management system, Canvas. Although the course calendar provides a broad overview and the general sequence of work and assignments for the course, what we accomplish in class will vary, and revisions to the calendar will be posted at the course site. You will need to check the course site regularly. You are responsible for letting me know about any network-related problems that prevent you from accessing or submitting assignments.

- **Recording Policy:** To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use. Documented academic accommodations may supersede this policy.

**SIT Policies and Resources**

Please refer to the SIT Study Abroad Handbook and the Policies section of the SIT website for all academic and student affairs policies. Students are accountable for complying with all published policies. Of particular relevance to this course are the policies regarding: academic integrity, Family Educational Rights and Privacy Act (FERPA), research and ethics in field

study and internships, late assignments, academic status, academic appeals, diversity and disability, sexual harassment and misconduct, and the student code of conduct.

Please refer to the SIT Study Abroad Handbook and SIT website for information on important resources and services provided through our central administration in Vermont, such as Library resources and research support, Accessibility Services, Counseling Services, Title IX information, and Equity, Diversity, and Inclusion resources.

**Course Schedule**

**Please be aware that topics and excursions may vary to take advantage of any emerging events, to accommodate changes in our lecturers' availability, and to respect any changes that would affect student safety. Students will be notified if this occurs*

This course schedule is a suggested sequence of modules, topics, texts, and experiential learning opportunites where each location offers parallel learning cycles with a comparative focus. Lead and local faculty should appropriately adapt how these topics are taught and select texts, case studies, guest speakers, and site visits that are relevant to the context and course themes.

## LOCATION #1: IRELAND (weeks 1-5)

**Module #1: Biodiversity and Conservation Initiatives in Europe**
Topics: ecological and policy landscape of Europe, key concepts of biodiversity, ecological networks, and conservation strategies.

Readings:

- European Commission. (n.d.). The European Green Deal. Retrieved June 11, 2025, from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
- European Commission. (n.d.). Biodiversity strategy for 2030. Retrieved June 11, 2025, from https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en
- European Parliament & Council of the European Union. (2024, June 24). Regulation (EU) 2024/1991 on nature restoration and amending Regulation (EU) 2022/869 (Text with EEA relevance). *Official Journal of the European Union*, L 1991, 29 July 2024. https://data.europa.eu/eli/reg/2024/1991/oj
- European Commission, Directorate-General for Agriculture and Rural Development. (n.d.). The common agricultural policy at a glance. Retrieved June 11, 2025, from https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance_en

- Department of Culture, Heritage and the Gaeltacht. (2023). 4th National Biodiversity Action Plan 2023–2030. National Parks and Wildlife Service. https://www.npws.ie/sites/default/files/files/4th_National_Biodiversity_Action_Plan.pdf

Learning on Location: Site visit to Special Protection Area, Cliffs of Moher

Assignment: Stakeholder Simulation and Strategic Conservation Plan – Group formation

**Module #2: Land Use, Landscape Change, and Wildlife Habitat**
Topics: Traditional grazing, karst ecosystems, habitat diversity

Readings:

- Environmental Protection Agency. (2021). Climate change and land use in Ireland (2018-CCRP-FS.36). EPA Research Report. https://www.epa.ie/publications/research/climate-change/research-294-climate-change-and-land-use-in-ireland.php
- Environmental Protection Agency. (2025). SEA of local authority land-use plans: EPA recommendations and resources (Version 1.25). https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-of-local-authority-land-use-plans---epa-recommendations-and-resources.php
- Environmental Protection Agency. (2023). EPA submission: NPWS draft strategy statement 2023–2025 (EPAC-2622). https://www.epa.ie/publications/corporate/submissions--position-papers/epa-submission--npws-draft-strategy-statement-2023-2025-epac-2622.php
- Geological Survey of Ireland. (2000). The karst of Ireland: Limestone landscapes. https://www.burrengeopark.ie/wp-content/uploads/2014/08/GSI-_The_Karst_of_Ireland-_Limestone_Landscapes_C.pdf

Learning on Location: Field trip to Burren National Park

**Module# 3: Agricultural Practices and Wildlife Conflict**
Topics: Badger-cattle TB conflict; hedgerows as corridors

Readings:

- Fossitt, J. A. (2000). A guide to habitats in Ireland. The Heritage Council. https://www.npws.ie/sites/default/files/publications/pdf/A%20Guide%20to%20Habitats%20in%20Ireland%20-%20Fossitt.pdf
- Byrne, A. W., Allen, A., Ciuti, S., Gormley, E., Kelly, D. J., Marks, N. J., Marples, N. M., Menzies, F., Montgomery, I., Newman, C., O'Hagan, M., … & White, P. C. L. (2024). Badger ecology, bovine tuberculosis, and population management: Lessons from the

island of Ireland. *Veterinary Medicine International*, 2024, Article 8875146. https://doi.org/10.1155/2024/8875146
- Teagasc. (n.d.). Farmland habitats. Agriculture and Food Development Authority. https://www.teagasc.ie/environment/biodiversity--countryside/farmland-habitats/

Learning on Location: Visit to farmland and conduct smallholder interviews

Assignment: Stakeholder Simulation and Strategic Conservation Plan, Stage 1 Stakeholder Role Assignment & Regional Challenge Brief

**Module #4: Urbanization and Peri-Urban Wildlife**
Topics: Urban sprawl; synanthropic species; public attitudes
Readings:

- European Environment Agency. (2016). Urban sprawl eating into wildlife habitats in Europe. https://www.eea.europa.eu/highlights/urban-sprawl-eating-into-wildlife
- Ahrens, A., & Lyons, S. (2019). Changes in land cover and urban sprawl in Ireland from a comparative perspective over 1990–2012. *Land*, 8(1), 16. https://doi.org/10.3390/land8010016
- Williams, B., & Shiels, P. (2000). Acceleration into sprawl: Causes and potential policy responses. *Economic and Social Research Institute* (ESRI). https://www.researchgate.net/publication/5019189_Acceleration_into_Sprawl_Causes_and_Potential_Policy_Responses
- O'Sullivan, B., & Ray, K. (2012). The Metropolitan Cork green belt: Synergies and tensions between strategic and local understandings of landscape value. In M. Kenneally (Ed.), Irish contemporary landscapes in literature and the arts (pp. 217–232). Palgrave Macmillan UK. https://doi.org/10.1057/9781137030030_14
- Sands, D. (2022). Dewilding 'wolf-land': Exploring the historical dimensions of human-wildlife conflict and coexistence in Ireland. *Conservation and Society*, 20(3), 257–267. https://doi.org/10.4103/cs.cs_118_21

Learning on Location: Local peri-urban green spaces

**Module #5: Biodiversity Loss and Ecological Restoration**
Topics: Habitat recovery, rewilding debates, native fauna return

Readings:

- Department of Housing, Local Government and Heritage. (2023, March 3). National Peatlands Strategy mid-term review and implementation plan. https://www.gov.ie/en/publication/4c7a4-national-peatlands-strategy-mid-term-review-and-implementation-plan/
- Arnds, P. (2020). Rewilding the world in the postcolonial age: On the nexus between cultural production and species politics. *Journal of Postcolonial Writing*, 56(4), 568–582. https://doi.org/10.1080/17449855.2020.1764203

- OConnell, B. (2025). Rewilding plans for a farm in Sligo. *DBS Applied Research and Theory Journal*, 2, Article 147. https://doi.org/10.22375/dbs.v2i1.147

Learning on Location**:** Visit Connemara National Park

**Module #6: Conservation Engagement and Public Participation**
Topics: Community science, volunteer impact, outreach methods

Readings:

- Review the current projects and working groups of the European Citizen Science Association
- Department of Housing, Local Government and Heritage. (2023). 4th National Biodiversity Action Plan 2023–2030. National Parks and Wildlife Service. https://www.npws.ie/sites/default/files/files/4th_National_Biodiversity_Action_Plan.pdf
- National Biodiversity Data Centre. (n.d.). Recording Ireland's wildlife: A beginner's guide – How to get involved in biological recording. National Biodiversity Data Centre. https://biodiversityireland.ie/app/uploads/2021/08/NBDC-Beginners-Guide-to-Recording-2022-WEB.pdf
- Lynn, D., & O'Connell, B. (2020). The citizens in citizen science: Demographic, socioeconomic, and health characteristics of biodiversity recorders in Ireland. *Citizen Science: Theory and Practice*, 5(1), 16. https://doi.org/10.5334/cstp.263

Learning on Location: Wildlife Trust volunteer day; citizen science app training

Assignment: Stakeholder Interview & Synthesis #1 due

## LOCATION #2: SWITZERLAND (weeks 6-10)

**Module #7: Land Use, Landscape Change, and Wildlife Habitat**

Topics: Elevation zones, habitat connectivity, Swiss national plans, strategies, and challenges

Readings:

- Bütikofer, L., Adde, A., Urbach, D., Baudraz, M., & Joost, S. (2024). High-resolution land use/cover forecasts for Switzerland in the 21st century. *Scientific Data*, 11, Article 231. https://doi.org/10.1038/s41597-024-03055-z
- ALPARC, CIPRA, ISCAR, & WWF. (2010). Restoring the web of life: Ecological networks for more biodiversity in the Alps. Alpine Network of Protected Areas. https://wwfint.awsassets.panda.org/downloads/restoring_the_web_of_life.pdf
- Federal Office for the Environment (FOEN). (2012). Swiss biodiversity strategy. Bern: Federal Office for the Environment. https://www.bafu.admin.ch/bafu/en/home/topics/biodiversity/publications-studies/publications/swiss-biodiversity-strategy.html

- Federal Office for the Environment (FOEN). (2017). Action plan for the Swiss biodiversity strategy. Bern: Federal Office for the Environment. https://www.bafu.admin.ch/bafu/en/home/topics/biodiversity/policy/swiss-biodiversity-strategy-and-action-plan.html
- Federal Office for the Environment (FOEN). (2023, June 21). Impact of the biodiversity action plan AP SBS (PDF, 83 kB). https://www.bafu.admin.ch/bafu/en/home/topics/biodiversity/publications-studies/publications/impact-of-the-biodiversity-action-plan-ap-sbs.html

Learning on Location: Alpine ecotone hike near Mont Salève

**Module #8: Agricultural Practices and Wildlife Conflict**
Topics: Lynx–livestock interactions, fencing, compensation schemes

Readings:

- Stauffer, Z., & Hunziker, M. (2025). Social acceptance of human–wildlife coexistence: A case study about the reintroduction of the large herbivore European bison (Bison bonasus) in Switzerland. *Restoration Ecology*. https://doi.org/10.1111/rec.14373
- Rigg, R. (2024). Lynx and livestock: Measures to prevent damage and mitigate conflict. *Slovak Wildlife Society*. https://cdpnews.net/wp-content/uploads/2024/11/CDPnews28_7_Rigg.pdf#:~:text=The%20problem%20of%20lynx%20depredation,lynx%20are%20reported%20to%20occur.

Learning on Location: visit to low-intensity pastures near Lake Geneva

Assignment: Assignment: Stakeholder Simulation and Strategic Conservation Plan, Stage 2 Strategic Position Paper & In-Character Workshop

**Module #9: Urbanization and Peri-Urban Wildlife**
Topics: Green infrastructure, urban pondscapes, Canton of Geneva Biodiversity Strategy
Readings:

- Honeck, E., Moilanen, A., Guinaudeau, B., Wyler, N., Schlaepfer, M. A., Martin, P., Sanguet, A., Urbina, L., von Arx, B., Massy, J., Fischer, C., & Lehmann, A. (2020). Implementing green infrastructure for the spatial planning of peri-urban areas in Geneva, Switzerland. *Sustainability*, 12(4), 1387. https://doi.org/10.3390/su12041387
- Tappert, S., Klöti, T., & Drilling, M. (2018). Contested urban green spaces in the compact city: The (re-)negotiation of urban gardening in Swiss cities. *Landscape and Urban Planning*, 170, 69–78. https://doi.org/10.1016/j.landurbplan.2017.08.016

- Salomon Cavin, J. (2017). Between distance and proximity: Nature parks and the city in Switzerland. *Articulo: Journal of Urban Research*, 16. https://doi.org/10.4000/articulo.3283
- Vasco, F., Perrin, J. A., & Oertli, B. (2024). Urban pondscape connecting people with nature and biodiversity in a medium-sized European city (Geneva, Switzerland). *Urban Ecosystems*, 27, 1117–1137. https://doi.org/10.1007/s11252-023-01493-y
- Office cantonal de l'agriculture et de la nature. (2018, January). Stratégie Biodiversité Genève 2030 [Geneva Biodiversity Strategy 2030]. Département du territoire, République et canton de Genève. https://www.ge.ch/document/7302/telecharger [English translation will be provided]

Learning on Location: Field trip to Parc Agro-Urbain Bernex et Confignon

Assignment:

**Module #10: Biodiversity Loss and Ecological Restoration**
Topics: Dam mitigation, fish passage, habitat mosaics

Readings:

- Initiatives pour l'Avenir des Grands Fleuves. (2021, August). Fiches synoptiques: The Swiss Rhone [Synoptic sheets]. Retrieved June 11, 2025, from https://www.initiativesfleuves.org/wp-content/uploads/2021/08/Fiches-synoptiques-RHONE_ENG.pdf
- Janssen, P., Stella, J. C., Räpple, B., Gruel, C.-R., Seignemartin, G., Pont, B., Dufour, S., & Piégay, H. (2021). Long-term river management legacies strongly alter riparian forest attributes and constrain restoration strategies along a large, multi-use river. *Journal of Environmental Management*, 279, 111630. https://doi.org/10.1016/j.jenvman.2020.111630
- Grimardias, D., Chasserieau, C., Beaufils, M., & Cattanéo, F. (2022). Ecological connectivity of the upper Rhône River: Upstream fish passage at two successive large hydroelectric dams for partially migratory species. *Ecological Engineering*, 178, 106545. https://doi.org/10.1016/j.ecoleng.2021.106545
- Arlettaz, R., Lugon, A., Sierro, A., Werner, P., Kéry, M., & Oggier, P.-A. (2011). River bed restoration boosts habitat mosaics and the demography of two rare non-aquatic vertebrates. *Biological Conservation*, 144(8), 2126–2132. https://doi.org/10.1016/j.biocon.2011.05.002

Learning on Location: Visit Rhône River Restoration Corridor

Assignment: Stakeholder Interview & Synthesis #2 due

# LOCATION #3: SPAIN (weeks 11-15)

**Module #11: Land Use, Landscape Change, and Wildlife Habitat**
Topic: Landsacape fragmentation, Iberian lynx habitat, dehesa systems and agoforestry

Readings:

- De Montis, A., Martín, B., Ortega, E., Ledda, A., & Serra, V. (2017). Landscape fragmentation in Mediterranean Europe: A comparative approach. *Land Use Policy*, 64, 83–94. https://doi.org/10.1016/j.landusepol.2017.02.006
- Hidalgo, P. J., Hernández, H., Sánchez-Almendro, A. J., López-Tirado, J., Vessella, F., & Porras, R. (2021). Fragmentation and connectivity of island forests in agricultural Mediterranean environments: A comparative study between the Guadalquivir Valley (Spain) and the Apulia Region (Italy). *Forests*, 12(9), 1201. https://doi.org/10.3390/f12091201
- Rodríguez-Rojo, M. P., Roig, S., López-Carrasco, C., Redondo García, M. M., & Sánchez-Mata, D. (2022). Which factors favour biodiversity in Iberian Dehesas? *Sustainability*, 14(4), 2345. https://doi.org/10.3390/su14042345
- Alfaya, P., de Pablo, C. T. L., & Alonso, G. (2022). Is landscape fragmentation always detrimental for species conservation? The case of the Iberian lynx in central Spain. *Ecological Complexity*, 49, 100985. https://doi.org/10.1016/j.ecocom.2021.100985

Learning on Location: Visit Sierra de Andújar Natural Park

**Module #12: Agricultural Practices and Wildlife Conflict**
Topic: agriculture and raptors, poison and pesticides

Readings:

- Aguilera-Alcalá, N., Arrondo, E., Pascual-Rico, R., García, J., Lambertucci, S. A., & Donázar, J. A. (2022). The value of transhumance for biodiversity conservation: Vulture foraging in relation to livestock movements. *Ambio*, 51, 1330–1342. https://doi.org/10.1007/s13280-021-01668-x
- Fernández-Gómez, L., Cortés-Avizanda, A., Arrondo, E., García-Alfonso, M., Ceballos, O., Montelío, E., & Donázar, J. A. (2022). Vultures feeding on the dark side: Current sanitary regulations may not be enough. *Bird Conservation International*, 32(4), 590–608. https://doi.org/10.1017/S0959270921000575
- Alfaro Moreno, J. A., Fernández García, J. A., Velasco Jiménez, F., & Quintana Touza, J. M. (2024). A descriptive study of poisoners and users of other indiscriminate means to illegally control wildlife in Spain. *Conservation Science and Practice*, 6(7), e13194. https://doi.org/10.1111/csp2.13194
- Peris, A., Baos, R., Martínez, A., Sergio, F., Hiraldo, F., & Eljarrat, E. (2023). Pesticide contamination of bird species from Doñana National Park (southwestern Spain): Temporal trends (1999–2021) and reproductive impacts. *Environmental Pollution*, 323, 121240. https://doi.org/10.1016/j.envpol.2023.121240

Learning on Location: guest lecture on wildlife crime efforts, representative from Spain's administrative authorities for CITES, the special police for nature protection (SEPRONA).

**Module #13: Urbanization and Peri-Urban Wildlife**
Topics: Green infrastructure, noise and light pollution impacts on wildlife in cities and nature parks

Readings:

- Santiago-Ramos, J., & Hurtado-Rodríguez, C. (2022). Assessing ecosystem services provision as a support for metropolitan green infrastructure planning: The case of three Spanish metropolitan areas. *Applied Spatial Analysis and Policy*, 15, 1115–1141. https://doi.org/10.1007/s12061-022-09441-7
- Cueto Ancela, J. L., Bienvenido-Huertas, D., Fernández Zacarías, F., Gey, R., & Hernández Molina, R. (2019). Anthropogenic noise mapping of a periurban natural park on the coastal area in the SW of Spain: Case study of bird's ecosystem protection. *Acta Acustica united with Acustica*, 105(6), 1129–1136. https://doi.org/10.3813/AAA.919380
- Méndez, A., Prieto, B., Aguirre i Font, J. M., & Sanmartín, P. (2024). Better, not more, lighting: Policies in urban areas towards environmentally-sound illumination of historical stone buildings that also halts biological colonization. *Science of The Total Environment,* 906, 167560. https://doi.org/10.1016/j.scitotenv.2023.167560
- Duarte, J., Farfán, M. A., Fa, J. E., Benítez, J. V., & Vargas, J. M. (2015). Deer populations inhabiting urban areas in the south of Spain: Habitat and conflicts. *European Journal of Wildlife Research, 61*(3), 365–377. https://doi.org/10.1007/s10344-015-0902-z

Learning on Location: visit to the Metropolitan Green Corridor within La Corchuela peri-urban park

**Module #14: Biodiversity Loss, Ecological Restoration, Conservation Engagement**
Topic: protected natural area, challenges and opportunities

Readings:

- Camacho, C., Negro, J. J., Elmberg, J., & et al. (2022). Groundwater extraction poses extreme threat to Doñana World Heritage Site. *Nature Ecology & Evolution*, 6(5), 654–655. https://doi.org/10.1038/s41559-022-01763-6
- Fernández-Delgado, C. (2017). Doñana natural space: The uncertain future of a crown jewel in Europe's protected areas. *Case Studies in the Environment*, 1(1), 1–12. https://doi.org/10.1525/cse.2017.000695
- Bejarano Bella, J. F., & Torres Rodríguez, A. (2017). 50 years of preservation in Doñana (Spain): Public involvement as the present challenge and management strategy to face future challenges (case study). *International Journal of Conservation Science*, 8(2), 227–236.

- de las Heras Pérez, M. Á., Vázquez Bernal, B., Jiménez Palacios, R., & Jiménez Pérez, R. (2021). Environmental citizenship education through the Doñana, Biodiversity and Culture Program. *Sustainability*, 13(5), 2809. https://doi.org/10.3390/su13052809

Learning on Location: Visit Doñana National Park

Assignment: Stakeholder Interview & Synthesis #3 due

**Module #15:**
Topics: Synthesis and Stakeholder Simulation

Assignment: Stakeholder Simulation and Strategic Conservation Plan, Stage 3 Group Strategic Conservation Plan & Individual Reflection