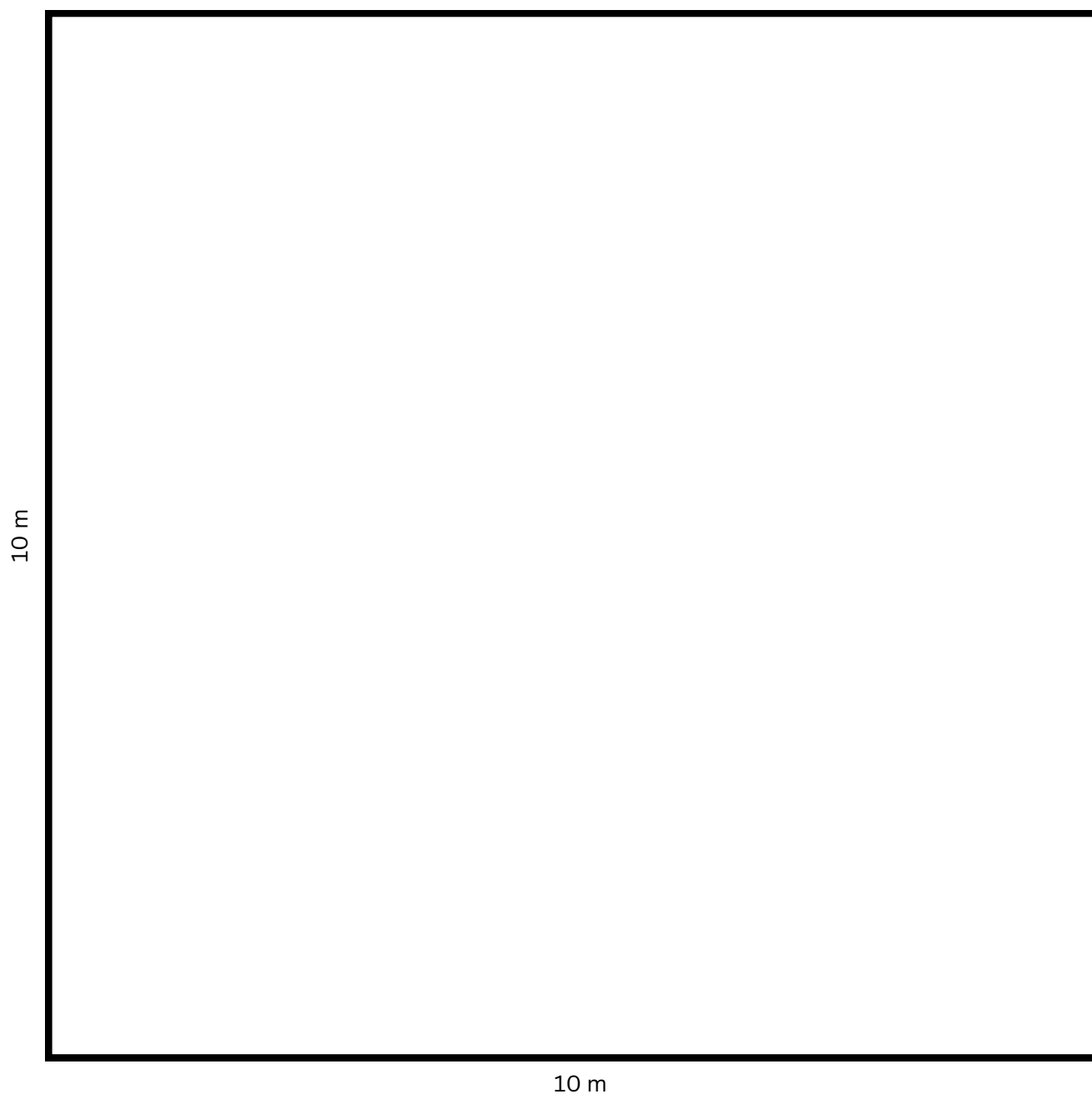


Ecology Fieldwork Notes

| | |
|--|--|
| Name | |
| Date | |
| Location | |
| Habitat | |
| Adjacent Habitats (if applicable) | |

Study Site Map



Key

Plant Identification

Identify five plant species. Give an accurate description of each, and draw a leaf.

| Species | Description | Leaf |
|---------|-------------|------|
| | | |
| | | |
| | | |
| | | |
| | | |

Frequency Table (Qualitative)

Record the presence (✓) or absence (✗) of each species within each quadrat.

| Quadrat Species | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total | % |
|--------------------|---|---|---|---|---|---|---|---|---|----|-------|---|
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Percentage Cover Table (Quantitative)

Record the percentage (%) of each quadrat that is covered by each species.

| Quadrat Species | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total | % |
|--------------------|---|---|---|---|---|---|---|---|---|----|-------|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
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| | | | | | | | | | | | | |

Invertebrate Recording Sheet

Which invertebrate sampling methods did you use today?

| Direct Searching | Beating Tray | Net | Sweep Net | Pitfall Trap | Moth Trap | Pooter |
|------------------|--------------|-----|-----------|--------------|-----------|--------|
| | | | | | | |


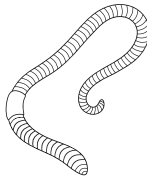
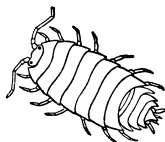

Specimens

Record 5 species, their features, their diet, and the sampling method used.

| Species | Features | Diet | Sampling Method |
|---------|----------|------|-----------------|
| | | | |
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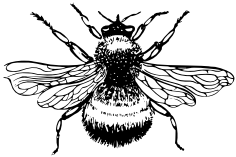


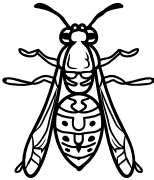
Decomposers

Which decomposers did you see?

| | | | |
|---|---|--|--|
| Fungi  | Earthworm  | Woodlouse  | Slug  |
| Other | | | |

Pollinators

Spend time watching some flowers within your study site. What insects did you see visiting the flowers?

| | | | |
|---|---|--|---|
| Examples of Pollinators | | | |
|  |  |  |  |
| Bumblebee | Hoverfly | Soldier Beetle | Wasp |
| Pollinators Recorded | | | |

Mammal Recording Sheet

What evidence of mammals did you see today?

| Droppings | Tracks / Footprints | Feeding signs | Fur or Hair | Bones | Dens |
|-----------|------------------------|------------------|-------------|-------|------|
| | | | | | |

Species

Record any mammal species that you saw or found evidence of.

| Species | Evidence | Diet | Predated by |
|---------|----------|------|-------------|
| | | | |
| | | | |
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Bird Recording Sheet

What evidence of birds did you find today?

| Sighting of Live Birds | Song/Calls | Feathers |
|------------------------|------------|----------|
| | | |

Species

Record 5 bird species that you saw or heard.

| Species | Description | Diet | Beak Shape |
|---------|-------------|------|------------|
| | | | |
| | | | |
| | | | |
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| | | | |

Climatic Factors

| | |
|---|--|
| Air Temperature Use a thermometer to record the temperature in the shade. | |
| Precipitation Is it raining or snowing today? | |
| Sunshine How sunny is it today? | |
| Wind Check met.ie to for today's wind speed. | |
| Climate What sort of climate does Ireland have? | |

Weather data for the past month or year can be found on www.met.ie.

Edaphic Factors

| | |
|---|--|
| Soil pH Use a soil testing kit to record the soil pH. | |
| Soil Temperature Use a soil thermometer to record the soil temperature. | |
| Is there a difference between the air and soil temperatures? How do you explain this? | |
| How does the soil pH affect the range of plants that grow here? | |

Abiotic Factors

| | |
|--|--|
| Altitude What is the altitude above sea level? How does altitude affect ecology? | |
| Aspect Which direction does the site face? Which is warmer - a N. or S. facing slope? | |
| Bedrock What is the bedrock type in the area? How does this affect the soil type? | |

Biotic Factors

Biotic (living) factors include the influence of humans and animals on the habitat. Different biotic factors are evident at each site. Here are some to investigate. Some may not be evident at your site. Conversely, you may find other biotic factors that are important at your site.

Biotic Factors: Over-Grazing

Many areas of Ireland have high populations of wild deer or goats. Many areas of commonage have too many sheep.

| | |
|--|--|
| Can you see any evidence of over-grazing? (Eg: Chewed bark and shoots, grass eaten down to the roots, no shrub layer or regeneration of trees.) | |
| What species are over-grazing here? | |
| Is there a predator missing? What & why? | |

Biotic Factors: Pollution


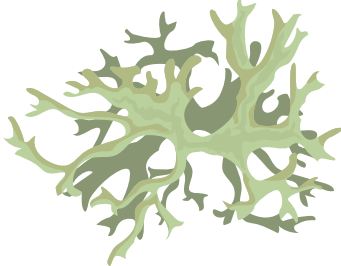

Which of the following are evident at the site? Describe.

| | |
|---|--|
| Litter | |
| Noise Pollution (Engines, machinery, loud people) | |
| Trampling or Damage of the Vegetation | |

Bio-indicators: Lichens & Air Quality

Lichens are primitive, slow growing plants. Each species consists of a symbiotic relationship between an algae and a fungus. There are 100s of species in Ireland. They can be very difficult to identify.

Lichens are bio-indicators. Their presence gives us clues to air quality. Flat (crustose) lichens, that grow low and tight to the surface, an often tolerate air pollution. Filamentous species usually need very clean air to survive.

| | | |
|--|---|---|
|  <p>Crustose Lichens</p> <p>Will grow in clean air, but can also grow in polluted air.</p> |  <p><i>Evernia</i> (Oak Moss)</p> <p>Will grow in clean air, but will also tolerate slight pollution.</p> |  <p><i>Usnea</i> (Old Man's Beard)</p> <p>Will only grow in very clean air.</p> |
| <p>Describe any lichens that you saw.</p> <p>What do they tell you about air quality at your site?</p> | | |

Biotic Factors: Introduced and Invasive Species

An Introduced Species is one that is not native to Ireland. In fact, many of our species have been introduced. Eg: Rabbits, hedgehogs and fallow deer were introduced by the Normans and are now considered to be part of our fauna.

An Invasive Species is an introduced species that causes harm to native species and habitats. Eg: Introduced Grey squirrels out-compete our native Red squirrels. Many introduced plants, such as Rhododendron, smother our native plant species.

| | |
|--|--|
| Are any invasive species present at your site? What? | |
| What problems does this invasive species cause? | |
| What viable solutions are there to tackle the problem. | |

Other Biotic Factors

If other obvious biotic factors are present at your site, describe them here?

| |
|--|
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|--|