

NARGC Grey Partridge Conservation Project

Classroom Lesson Plan - 3rd to 6th Class

Theme	The Grey Partridge - understanding and protecting a native farmland bird
Suggested duration	60-75 minutes, or divided across two lessons
Curriculum areas	SESE - Science and Geography, English and Visual Arts
Key focus	Wildlife, habitats, food webs, biodiversity, conservation and human impact

Teacher Background Information

What is a Grey Partridge?

The Grey Partridge (*Perdix perdix*) is a native Irish farmland bird. It is a compact, ground-dwelling bird with grey, brown and chestnut colouring that provides excellent camouflage. Unlike many familiar birds, Grey Partridge spend most of their lives on the ground, where they feed, nest and raise their chicks.

During autumn and winter, family groups often remain together. A group of partridges is called a covey. Grey Partridge were once much more widespread across Ireland, but their population declined dramatically during the twentieth century. Today they are a bird of high conservation concern in Ireland.

The species provides an excellent way for pupils to explore habitats, food webs, biodiversity, farming, conservation and the relationships between living things.

What does a Grey Partridge eat?

The diet changes depending on the age of the bird. Adult Grey Partridge eat mainly seeds, grain, leaves, shoots and other plant material. Young chicks have very different requirements.

During their first weeks of life, chicks depend heavily on insects and other small invertebrates. Beetles, caterpillars, ants, larvae and other small creatures provide the protein and energy needed for rapid growth.

Healthy plant diversity -> more insects -> more food for chicks -> a better chance of chick survival.

Why did Grey Partridge decline?

There is no single cause. Grey Partridge need food, nesting habitat, insects, shelter and protection throughout the year. Over many decades, changes in the countryside reduced the availability of some of these resources.

- Loss or reduction of suitable nesting habitat and rough grassy field margins.
- Changes in cropping and agricultural practices.
- Fewer wild plants providing seeds and fewer insects for young chicks.
- Loss of winter food and cover.
- Predation of eggs, chicks and adult birds.
- Small and increasingly isolated populations.

It is important that pupils do not leave the lesson believing that farmers caused the problem. Modern Grey Partridge conservation depends heavily on working with farmers and landowners. Agricultural land can provide excellent wildlife habitat when suitable areas are managed with conservation in mind.

NARGC Conservation Work

Helping the Grey Partridge recover

The NARGC and its affiliated clubs have dedicated volunteers involved in practical wildlife conservation. A key principle of Grey Partridge conservation is that releasing birds alone is not enough: the habitat must be capable of supporting them.

- Working with farmers and landowners to create and improve suitable habitat.
- Planting conservation crops that provide food and shelter.
- Maintaining grassy nesting cover and insect-rich brood-rearing areas.
- Providing winter food and cover.
- Carrying out responsible predator management where appropriate.
- Rearing and releasing Grey Partridge as part of carefully managed conservation programmes.
- Monitoring birds after release and looking for evidence of successful breeding.
- Recording nests, chicks and coveys to understand how the population is progressing.

The long-term aim is not simply to have more birds for a short time. It is to help establish healthy breeding populations that can survive in suitable Irish farmland habitats.

Habitats created for Grey Partridge can also benefit bees, butterflies, pollinating insects, other farmland birds and many different plants. This is an important example of biodiversity and interdependence.

Learning Intentions

- Identify a Grey Partridge and describe the habitat it requires.
- Explain the difference between the diets of chicks and adult birds.
- Understand why insects are particularly important for young chicks.
- Describe some of the reasons Grey Partridge declined in Ireland.
- Explain the concepts of food chain, food web, biodiversity and interdependence.
- Identify connections between plants, insects, Grey Partridge and predators.
- Describe practical conservation measures used to help Grey Partridge.
- Understand the contribution of farmers, landowners, NARGC clubs and volunteers.
- Suggest ways in which farmland habitat can be improved for wildlife.

Key Vocabulary

Habitat - the environment in which an organism lives.

Conservation - protecting and managing wildlife and habitats.

Biodiversity - the variety of living things within an area.

Food chain - a sequence showing how energy passes from one living thing to another.

Food web - a network of interconnected food chains within an ecosystem.

Predator - an animal that hunts other animals for food.

Prey - an animal eaten by another animal.

Camouflage - colours or patterns that help an animal blend into its surroundings.

Invertebrate - an animal without a backbone, such as an insect or spider.

Covey - a group or family of partridges.

Interdependence - the way living things depend upon one another.

Conservation crop - a crop or mixture planted partly to provide food and habitat for wildlife.

Lesson Sequence

Observation, diet and food webs

Part 1 - Meet the Grey Partridge

Suggested time: 5-10 minutes

Show pupils a photograph of a real Grey Partridge. Before providing information, ask them to observe it carefully.

- What features do you notice?
- What colours can you see?
- Why might these colours be useful?
- Looking at its body and legs, where do you think this bird spends most of its time?
- What type of habitat might it prefer?

Challenge question: Why might camouflage be particularly important for a bird that builds its nest on the ground?

Use the discussion to introduce camouflage and the vulnerability of ground nests, eggs and chicks.

Part 2 - What's on the Menu?

Suggested time: 5-10 minutes

Ask pupils to predict the Grey Partridge's diet and write their suggestions on the board. Explain that adult birds mainly eat seeds, grain, leaves, shoots and plant material, while chicks depend heavily on insects and other invertebrates.

Ask: Why might a rapidly growing chick require insects rather than surviving entirely on seeds?

Introduce the first ecological connection: if there are fewer insects in a field, what might happen to Grey Partridge chicks?

Part 3 - Build a Grey Partridge Food Web

Suggested time: 15-20 minutes

Explain that a food chain shows one route through which energy moves, for example: Sun -> Plant -> Caterpillar -> Grey Partridge. A food web is more realistic because many food chains are connected.

Divide pupils into small groups. Give each group cards or pieces of paper labelled:

- Sun
- Wheat / cereal crop

- Wildflowers
- Grasses
- Seeds
- Beetles
- Caterpillars
- Ants
- Spiders
- Grey Partridge chick
- Adult Grey Partridge
- Other farmland birds
- Fox
- Sparrowhawk

Pupils arrange the cards on a large sheet and draw arrows to show how energy moves through the ecosystem.

Example: Sun -> Wildflower -> Caterpillar -> Grey Partridge chick. The finished diagram should become a web rather than one straight line.

Lesson Activities

Cause, effect and conservation choices

Part 4 - Break the Food Web!

Suggested time: 10 minutes

Once groups have constructed their food webs, introduce a change: imagine there are suddenly far fewer insects in the habitat. Ask pupils to remove some insect cards.

- What happens to the Grey Partridge chicks?
- What other animals might be affected?
- Could something that happens to an insect eventually affect a bird?

Now reverse the scenario. A farmer and conservation volunteers create a wide field margin containing grasses and wildflowers.

- What might happen to the number of insects?
- What happens to the amount of food available to chicks?
- Could other wildlife benefit too?

Key message: Protecting a species often means protecting the entire system around it.

Part 5 - Why Did Grey Partridge Become So Rare?

Suggested time: 10 minutes

Turn pupils into wildlife detectives. Remind them that a Grey Partridge needs nesting cover + insects + seeds + shelter + safe habitat. Present the following changes and ask pupils to predict the consequences.

A grassy field margin disappears.

What might the partridge lose? Nesting and hiding habitat.

There are fewer insects.

Who is particularly affected? Young chicks.

There are very few seeds available during winter.

What problem does this create? Less winter food.

There is good habitat but very high predation on nests and chicks.

Could this affect breeding success? Yes.

The class should discover that the decline is not caused by one single problem. Several pressures can interact.

Part 6 - Become an NARGC Conservation Team

Suggested time: 10-15 minutes

You are now responsible for managing an area of Irish farmland where we want Grey Partridge to survive and breed.

Each group chooses which actions it would use and must explain why.

- Plant conservation crops.
- Create grassy nesting areas.
- Create insect-rich field margins.
- Provide winter feeding areas.
- Remove every hedgerow.
- Work with local farmers and landowners.
- Monitor released birds and record nests and chicks.
- Carry out responsible predator management where necessary.
- Leave the birds without suitable habitat and simply release more birds every year.

Discussion: Why would simply releasing lots of Grey Partridge into unsuitable habitat probably not solve the problem?

Applying the Learning

Design, debate and review

Part 7 - Design a Grey Partridge Conservation Area

Suggested time: 15-20 minutes

Give each pupil or group an A3 sheet. Tell them they have been given a farm and asked to design the perfect Grey Partridge conservation area.

- Fields and crops.
- Conservation crops.
- Grassy field margins.
- Hedgerows and wildflowers.
- Nesting cover.
- Insect-rich areas.
- Winter feeding areas.
- Water and shelter.

Pupils should label the different areas. Older pupils should explain why each feature is present, for example: Wildflower margin -> insects -> food for chicks; Conservation crop -> seeds + shelter; Long grass -> nesting cover.

Part 8 - Conservation Debate

Particularly suitable for 5th and 6th Class.

"To save an endangered bird, all we need to do is release more birds."

Ask pupils whether they agree or disagree. They must use evidence from the lesson to support their answer, referring to habitat, food, insects, nesting areas, predators, winter survival, monitoring and breeding.

Part 9 - What Have We Learned?

1. Where does the Grey Partridge spend most of its life?

On the ground in farmland and open countryside.

2. What do adult Grey Partridge eat?

Seeds, grain and other plant material.

3. Why are insects particularly important?

Young chicks need insects and other invertebrates to grow.

4. What is a food web?

A network showing feeding relationships and how energy moves between organisms.

5. Give one reason Grey Partridge declined.

Accept suitable answers relating to habitat, food, insects, nesting cover or predation.

6. Why are grassy and wildflower-rich field margins useful?

They can provide nesting cover, shelter and habitat for insects and other wildlife.

7. Why isn't releasing birds alone enough?

The birds need suitable habitat, food, cover and conditions in which to survive and breed.

8. Who needs to work together to help Grey Partridge?

Farmers, landowners, conservationists, NARGC clubs and volunteers.

Grey Partridge Colouring Competition

Using observation and camouflage

Part 10 - Colouring Activity

Suggested time: 20-30 minutes, or use as a separate Visual Arts lesson.

Finish by introducing the NARGC Grey Partridge Colouring Competition. Use the appropriate 3rd & 4th Class or 5th & 6th Class colouring sheet and display a photograph of a real Grey Partridge as a reference.

Rather than treating it simply as a colouring exercise, ask pupils to use what they have learned. Encourage them to observe:

- Grey and brown plumage.
- Chestnut/orange facial colouring.
- Feather patterns.
- Camouflage.
- Colours found in farmland.
- Grass, crops, soil and vegetation.

Ask: How does the colouring of the Grey Partridge help it survive?

Encourage pupils to colour the bird and surrounding habitat as realistically as possible.

Optional Extension Activities

Grey Partridge Fact File

Create a one-page species profile including species name, scientific name, habitat, adult diet, chick diet, main threats, conservation measures and an interesting fact.

Conservation Poster

Create a poster titled "Help Bring Back the Grey Partridge" explaining three things the bird needs to survive.

Food-Web Challenge

Create the most detailed Grey Partridge food web possible. Circle the Grey Partridge and count how many organisms are connected directly or indirectly to it.

Persuasive Writing - 5th & 6th Class

Write a short piece titled "Why should we save the Grey Partridge?" using evidence from the lesson.

Become a Conservation Scientist

If the NARGC released Grey Partridge into an area, what information would we need to collect to decide whether the project was successful?

- How many birds survive and where do they travel?
- Do they find enough food and form pairs?
- Do they build nests and hatch chicks?
- How many chicks survive?
- Are there wild coveys the following year?

Differentiation and Closing Message

Adapting the lesson across 3rd to 6th Class

3rd and 4th Class

- Focus on habitat, diet and simple food chains.
- Construct a basic food web with teacher support.
- Identify reasons for decline and helpful conservation actions.
- Use labelled drawings to explain habitat requirements.

5th and 6th Class

- Develop more complex food webs and explain interdependence.
- Explore biodiversity and human influence on habitats.
- Evaluate different conservation measures and justify choices.
- Discuss monitoring of populations, cause-and-effect relationships and conservation evidence.
- Use debate and persuasive writing to communicate conservation ideas.

Key Message to Finish the Lesson

The Grey Partridge is part of Ireland's natural heritage. Saving it involves much more than protecting one bird. Grey Partridge depend on healthy farmland habitats containing plants, insects, food, nesting cover and shelter. By understanding these connections, and by farmers, landowners, conservationists and volunteers working together, we can give the Grey Partridge a better chance of returning to the Irish countryside.

NARGC

Protecting our countryside and passing our wildlife heritage to the next generation.