Guidance notes for grade 4-6 teachers in African schools

Connecting Birds and People: our shared responsibility

For further information please contact birdlife-africa@birdlife.org
Acknowledgements

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Teacher’s sheet: Background information

What is Spring Alive?

Spring Alive is an international project to encourage children’s interest in nature and the conservation of migratory birds and to get them to take action for birds and other wildlife as well as to participate in events organized by BirdLife Partners.

What does the campaign consist of?

Observers in 40 European and Central Asian countries and 14 African countries register in the Internet database of the project their first observations of White Stork, Barn Swallow, Common Swift, Common Cuckoo and since year 2013, European Bee-eater. On the ground of the obtained data, maps of bird arrivals are created, which allow us to follow the seasonal movements of these bird species across Africa, Europe and Asian.

Why it is worthwhile to take part in this project?

Spring Alive is a simple nature-education project, offering each participant the opportunity to learn about these birds, of taking part in the collection of data and actions for birds. This campaign brings closer the questions connected with bird migrations and climate changes as one of the factors which can have influence on the movement of the birds.

Many teachers have already taken part in previous editions of the campaign. Based on the materials placed on the website of the project and thanks to the educational and nature suggestions prepared by the various BirdLife Partners implementing Spring Alive on three continents, thousands of people could join the observation of the fascinating phenomena of bird migrations.

Spring Alive is a perfect opportunity to go for site trips, make young people more sensitive to the beauty of nature, and develop the skill of perception of nature with many senses. Following the information on the Spring Alive website helps students to get to know the natural variety of different climatic zones, enabling the students learn about these birds in both their breeding and wintering grounds. Simultaneously it is a reminder to mankind to take care of nature to ensure that we always hear the calls of birds. Participation in the project offers students the possibility to develop interest in nature.

Furthermore, the project connects people from different regions and between countries as they have common shared values on conserving the migratory bird species.

The European season begins on 1st February and ends on 21st June while the African season begins on 1st September and ends on 30th November every year.

Remember ‘Spring’ is synonymous with Europe; however in Africa reference is mainly to ‘wet’ and ‘dry’ season.
How to participate in the action?

1. Get to know about the Spring Alive bird species – **White Stork**, **Barn Swallow**, **Common Swift**, **Common Cuckoo** and **European Bee-eater** and find out when they appear in your country.
2. Become a member of the nature club in your school or in your area to learn more about the birds.
3. Become a member of your national Birdlife Partner and encouraging your friends to also participate.
4. Check the calendar of Spring Alive events to see what kinds of activities are planned by the BirdLife Partner in your respective country. These may range from bird watching, outings, picnics, bird fairs etc. Chose the one most suitable for you.
5. Engage in activities that help birds and their habitats. For example tree planting, reducing water pollution.
6. Register your **first** sightings of the **White Stork**, **Barn Swallow**, **Common Swift**, **Common Cuckoo** and **European Bee-eater** in your notebook.
7. Go to Spring Alive website (www.springalive.net) and register to submit your observations.
8. Children without access to computers are encouraged can share their data through their Nature Clubs or submit them to their BirdLife Partner.

Note: Prizes are awarded to children and teachers who post the most observations, so you are all encouraged to participate.

Tell your friends to come join the fun!

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Idea of Spring Alive

Approximately 10,000 bird species live all over the world. Their distribution on the globe is varied and is directly connected with physiographic conditions, type of climate and presence of definite types of habitats. Man exerts greater and greater influence on the natural environment. Sudden development of settlement, intensification of agriculture, industrialization and industrial “production” of greenhouse gases has resulted in deep changes of landscape and strengthening of climate changes.

Birds are inseparable element of the world of nature; they play an essential part in ecosystems. They are a perfect indicator of their state and biodiversity. Changes in the size of selected breeding species are treated as the indicator of changes in nature and due to it the indicator of quality of human life.

It appears the climate changes influence most species to a large degree. Global warming causes changes in the range of occurrence of many bird species. It also has a tremendous influence on time of their migrations - earlier arrivals from wintering grounds and beginning of breeding. If these changes do not appear simultaneously with other ones e.g. accessibility of food in early spring, it will result in fall in the survival ratio of both adult birds and nestlings, what may lead to breakdown in number of local populations.

Basing on climate change models, the home ranges of most African species are expected to shift which poses challenges to the IBAs as their protection resources will not be available for the “priority” species, as it is predicted that 7 or 8 “priority” species will lose their suitable climate space. The species whose current and future ranges do not overlap are expected to be at a high risk but most of the African species that are vulnerable to climate change are considered not to be threatened by extinction due to limited knowledge of their current and future distributions. The elevated temperature of the wintering grounds in Africa as a result of climate change had advanced the arrival dates of the birds to their breeding ground over the past 30 years which in turn advanced their departure date from Europe to Africa.

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The idea of the Spring Alive campaign is to follow the arrival dates of migratory birds from the breeding grounds to the wintering grounds. This data together with other information (change of territorial range and population numbers) may be an indicator of the coming climate changes.

If bird protection is to bring serious results it must be done in a complex way and on the largest possible scale, hence there are international conventions and legal regulations such as Ramsar Convention, Bonn Convention, Washington Convention or convention on biological diversity. The European Union countries are obliged to put into practice the Birds Directive from 1979, which obliges the member countries to, among others, preserve populations of wildlife birds and to create special protection areas within the Nature 2000 network.

*Five species of migratory birds in the Sprig Alive programme - why them?*

**White Stork, Barn Swallow, Common Swift, Common Cuckoo** and **European Bee-Eater** are species that breed in different European countries. And they winter in different parts of Africa, migrating along different flyway routes. The **Barn Swallow**'s survival rate is directly affected by the amount of annual rainfall in Africa, with high mortality rate when rainfall is low especially in northern Africa that exacerbates the negative effects of the poor conditions in southern Africa. The **White Stork** congregate when migrating from tropical sub-Sahara as far as South Africa, they could diverge westward into western Sudan, Chad and Nigeria. The **Common Cuckoo** and **Common Swift** migrate through the western region to the southern region. The **European Bee-eater** is said to frequent savannahs, lake shores and cultivated lands. These species are easily recognized due to their characteristics, making it possible for the youngest observer to be part of the project. The result of observation of the arrival dates, possible changes of their territorial ranges and population size can be an ideal indicator of changes taking place in nature.

It is worth emphasizing that over the years, amateurs for whom bird watching is a fascinating occupation play an ever-increasing part in research on the status of bird population, their distribution and number. This public engagement is referred to as ‘citizen science’.
Lesson Plan 1: Migrating with the Spring AliveBirds

Length of lesson: 45 min

General aim:
Students will become familiar with the reasons why birds migrate and with methods of tracking migratory birds.

Specific aims:
- The students learn what the main reasons are for seasonal migration among birds;
- The students know examples of migratory routes taken by the White Stork and the Common Cuckoo;
- The students know the methods used for tracking bird migrations: ringing and using GPS satellite transmitters;
- The students know what the Spring Alive Project is and how to navigate around and feed data into the project’s website.

Methods: discussion, worksheets, work on the Spring Alive website, brainstorming.

Teaching aids: worksheets, a computer with access to the Internet, geographical atlases (a minimum of one for every two students).

Preparation phase: The teacher becomes acquainted with basic information about the Spring Alive Project and with the biology of the birds chosen for the project, by visiting www.springalive.net. The teacher prepares worksheets – one for each student.

Description of the lesson:

1. Introduction
The teacher introduces the students to the topic of the lesson and asks them if they know which birds are residents of the country and which migrate to “cold countries” i.e Europe. The teacher asks the students which countries they consider “cold”. The teacher asks the students if they consider their own country cold. The teacher explains that for some birds, Europe is considered “cold continent”. The teacher gives examples of birds that reside in their countries.

2. Why do birds migrate?
The teacher runs a brainstorm based on the question: “Why do birds return to Africa after breeding in Europe?” There are no such things as wrong or ridiculous answers in a brainstorm. The teacher writes the students’ ideas on the board and asks the students who offered answers to justify them, but doesn’t say which answers are right.

Reason for migration

Birds migrate to move from areas of low or decreasing resources to areas of high or increasing resources. The two primary resources being sought are food and nesting locations. Birds that nest in Europe migrate to Europe in the spring to take advantage of burgeoning insect populations, budding plants and an abundance of nesting locations. As winter approaches in Europe, and the availability of insects and other food resources drops, the birds move south again. Escaping the cold in Europe is not only the motivating factor as many species, can withstand freezing temperatures as long as an adequate supply of food is available.
Types of migration
The term *migration* is used to describe movements of populations of birds (or other animals). Also considering the distance travelled by these bird species is another way of defining migration.

- **Short-distance migrants**: May move only a short distance, as from higher to lower elevations on a mountainside.
- **Medium-distance migrants**: Some species may cover distances that span from one to several countries.
- **Long-distance migrants**: Birds that typically have ranges that extend from Europe to the southern-most part of Africa.

The pattern of migration can vary within each category, but is most variable in short and medium distance migrants.

Migration hazards
Taking a journey that can stretch to a round-trip distance of several thousand miles is a dangerous and arduous undertaking. It is an effort that tests both the birds' physical and mental capabilities. The physical stress of the trip, lack of adequate food supplies along the way, hunting, bad weather, and increased exposure to predators all add to the hazards of the journey.

In recent years long-distance migrants have been facing a growing threat from communication towers and tall buildings. Many species are attracted to the lights of tall buildings and millions are killed each year in collisions with the structures.

Then the teacher distributes *Worksheet: Migrating with Spring Alive birds.*

The teacher asks the students if they know the birds shown in the picture.

The students and the teacher name the birds.

The teacher asks the students which of the birds return to Africa to winter from Europe, and which ones are non-migratory.

After that, the students solve Task 1, where they have to match the birds with examples of their food. Each species should be linked up with a line with one kind of food.

These are: **Common Cuckoo** – caterpillars; **European Bee-eater** – wasps; **Sparrow** – the seeds of weeds, trees and shrubs; **Barn Swallow** – mosquitoes or flies; **White Stork** – rodents, **Common Swift** – mosquitoes and flies.

Then the students mark on the table which kinds of food that are freely available all year round. Only the seeds of various weeds, trees and shrubs are freely available all year round, insects are not abundance in dry season; the teacher asks the students which bird finds enough food all year round. The answer is: only the **Sparrow**. We can thus predict that the Sparrow is a sedentary or non-migratory species.

We already know why birds fly away inspring. But why do they come back during European winter? The students try to answer the question. The teacher asks the students to draw the situation from the calendar spring on the map.

- Where do birds spend their spring?
- Where do they gather?
- Is the density of birds great?

The students carry out Task 2 from the *Worksheet: Migrating with Spring Alive birds*

If the density of birds in spring in Europe is great do the birds have to compete for food?

And if young birds are born, will there be enough food for all of them?

The teacher asks the students to look at the table which was filled in earlier. The students marked that in the dry season or European winter, there are few insects, but does that mean there are a lot of them in summer or wet season?

What is the conclusion from this? The students independently or with the teacher’s help work out the reasons why birds return to their breeding habitats in the spring: greater availability of food against reduced competition for food and a larger number of potential places for nest-building.

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3. Ringing remains the main method of tracking birds’ migration.
The teacher asks the students how we know what routes birds migrate along. Have the students heard of the method of tracking birds’ migration routes used for over a century? The teacher describes the method of ringing but first asks them to listen carefully because it will be necessary to carry out the task. The teacher tells the story of a certain Barn Swallow:

### The story of the Barn Swallow

“In the world there are permanent places where ornithologists catch migrating birds in nets every year. Imagine that a Barn Swallow was caught in one of these places for example in Nigeria in September. The ornithologist disentangled it from the net, weighed it, ascertained its sex, age and species and then attached a ring to its leg. Then wrote all the information down meticulously and released the bird.

During its migration the Barn Swallow had an accident – it flew into a window with great force. A girl from Botswana found it, took it to a vet who treated birds, who noticed that the bird was ringed. He read the data, weighed the bird, wrote down the date and sent the information to the bird ringing centre in his country.” The teacher asks the students what Nigerian and Botswanan ornithologists will learn after comparing this data. The ornithologists will know that birds migrated along a route between the two places, whether the bird lost weight during migration and how much time it took it to cover the distance between the two points.

The teacher asks the students to solve Task 3 from the Worksheet: Migrating with Spring Alive birds. They indicate the objects which an ornithologist needs to ring birds: a weighing scale, callipers, notebook and pen, and a numbered ring (the ornithologist doesn’t need a watering can or a measuring cylinder).

4. You can also track bird migration.
The teacher tells the students about the Spring Alive Project and encourages them to observe the first appearances of the birds in the project. The students and the teacher track the migration of birds on the maps on www.springalive.net. This part of the lesson can be carried out in the IT room, or in the room that was used before, if there’s Internet access and a projector that can be connected to a computer. If this is impossible, the teacher can set homework where the students will track the migration of the selected bird on www.springalive.net and a short description about which European countries the greatest number of migrating birds may be seen in. The teacher shows the students where they can add their observations on the website.

5. Migrate with a White Stork and Common Cuckoo.
(This task can be done during the lesson, or if there isn’t enough time, as homework)
The teacher tells the students about the new method of tracking bird migration routes, by fitting birds with GPS satellite transmitters. The teacher can illustrate the story using a simple diagram drawn on the board. The GPS transmitter records the bird’s location several times a day and transmits this information to the satellite. The information from the satellite is sent to a terrestrial centralised database, which is then checked and made available to ornithologists studying a given bird.

Using this modern method, we can discover the birds’ precise migration routes. The transmitters are very light, only weighing a few dozen grams, and the most modern ones only weigh a few grams. They are very well suited to being attached to large birds, such as the White Stork, which weighs 3-4 kg. However, even the lightest transmitter is too heavy for small birds, e.g. the Swallow, which weighs around 20 g. The transmitters are quite expensive, which means that ringing birds remains the most common research method.

The students work individually or in pairs on Task 4 from the Worksheet: Migrating with Spring Alive birds. The students choose one of the two birds – the Common Cuckoo or the White Stork – whose migratory routes they will have to mark.
The students who chose the **Common Cuckoo** draw its outline in flight and find the towns and cities in the table beneath it. The students who chose the **White Stork** do the same.

The teacher explains to the students that the routes they are drawing are similar to the routes of the birds with satellite transmitters – Oga the Cuckoo and Rafiki the Stork.

The Cuckoo whose route to its winter habitat the students are drawing was caught and fitted with a GPS transmitter in Abuja, Nigeria.

In the case of the Stork, the students draw the route it flew from Europe to where its transmitter was fitted – in Nairobi, Kenya.
Migrating with the Spring Alive Birds

1. Why do birds migrate?
   Draw lines connecting the birds with elements of their "menus". Think about it and mark in the table when there's a lot (+) of this food and when there isn't (−).

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2. It's winter in Europe.
   Show how the birds are distributed in winter. If one bird species gathers in great numbers in one place, show it by drawing lots of symbols representing that bird in that place (e.g. "V").

3. Circle the equipment ornithologists use to ring birds.

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4. Choose one of the two birds you want to migrate with: Oga the Cuckoo, or Rafiki the Stork. Then look in an atlas and mark the cities the bird will fly near to when it migrates. Then you can draw the approximate route of its migration.
Lesson Plan 2: Dangers to the Spring Alive Birds and how we can protect them

Length of lesson: 45 min

General aim:
The students learn about the dangers to birds during migration and at their wintering sites, and the students find out about various methods of protecting birds’ habitat.

Specific aims:
- The students find out about the dangers the White Stork can experience during migration;
- The students find ways of protecting the habitats of Common Swifts, White Storks and Barn Swallows;
- The students learn that the greatest danger to birds is loss of habitat;
- The students find out that the impoverishment of birds’ feeding areas is a danger to birds.

Methods: discussion, worksheets, independent work designing a poster.

Teaching aids: worksheets.

Preparation phase: The teacher familiarises themselves with basic information about the Spring Alive Project and the biology of the birds chosen for the project, by visiting www.springalive.net.
The teacher copies the worksheets – one copy for each student.

Description of the lesson:

1. Introduction
If the teacher has already taught the lesson “Migrating with the Birds from the Spring Alive Project”, they can refer to what the students learnt and ask whether they remember where the birds from the Spring Alive Project breeds and winter, and if the distance between their breeding habitat and the wintering ground is great.

If the teacher didn’t teach the lesson before, the first step will be to introduce the birds selected for the project briefly and show the students (e.g. by using a wall map of the world), where the chosen birds breed and the distances between the breeding habitat and where the students live (if it includes the region where the birds winters – this information can be found in field guides or online).

2. Dangerous journeys
The teacher asks the students if they think that dangers lie in wait for birds during their long migratory journeys. The teacher runs a brainstorm about what dangers threaten birds during migration. The students offer their suggestions.

Then the teacher distributes Worksheets 1: Dangers of Spring Alive birds and how we can protect them. The students complete Task 1. They look at the pictures and wonder what dangers might lie in wait for migrating White Storks.

Labelling the pictures is an opportunity to develop the subject of particular dangers, for example the picture of the desert may be an opportunity for a short conversation about the desertification of many regions and climate change. The students can also reflect on the consequences of strong winds meeting on migration routes or how to oppose the hunting which occurs in Africa. In southern countries, hunting for birds during migration concerns smaller migratory birds (e.g. passerines and thrushes), and also birds of prey.
3. I haven’t got anything to eat or anywhere to sleep – dangers to birds and their habitats

The teacher asks students to think about what birds need for their nesting and roosting sites. The teacher asks the students if a **White Stork** will want to nest in the same place as the previous year if the pond/dam/lake nearby have been dried. Will the bird find enough food?

The teacher tells the students that the chief dangers for wild birds and other animals is the vanishing of the habitats they need, e.g. wetlands in the case of the **White Stork**, and also suitable places to build nests – for example sandy hillsides for the **European Bee-eater**.

The students work with **Task 3 (Worksheet 2)**. The task for the students is to draw a smiley face (if the situation is helpful to the bird) or a sad face (in the opposite situation) in the boxes alongside the drawings.

The teacher asks the students to name and briefly describe the dangers to the birds shown in the drawings.

**Answers:**

The drawing on the left: as a result of a building being insulated a **Common Swift’s** nest has been blocked up – 😞

The drawing on the right: as a result of using pesticides the food supply for **Barn Swallows** and **Common Cuckoos** has been impoverished – 😞

The drawing on the right – as a result of swampy ground being dried out the food base of the **White Stork** has been impoverished – 😞

The drawing on the left – as a result of the hillside being developed during the breeding season, the **European Bee-eaters** were frightened away and are discouraged from building their nests there.

4. Can we also help birds?

Can we also help birds?

The teacher asks the students if in their opinion, it is worth helping birds. Then asks the students to explain why.

The teacher tells the students that one form of protecting birds is to protect their nests.

The teacher asks the students to do **Task 2** from **Worksheet 1**.

The students try to connect the fragments “cut out” of the drawings in order to fill the empty red boxes.

The students and the teacher decide which bird will build its nest in a given drawing, then what problem is being shown in the picture, and finally how to solve it.

**Answer:**

A – **White Stork’s** nest, situation: the nest on trees and the trees are been felled; help for the bird: stop the felling of trees;

B – After a building is insulated the holes that **Common Swifts** previously nested in have been covered with a grille; help for the birds: putting up nesting boxes for **Common Swifts** or remove the grille;

C – **Barn Swallows** have built a nest on a veranda, but the house owners don’t like the fact that their droppings make the plaster dirty; solution: instead of removing the nest a wooden shelf can be installed beneath the nest to collect the droppings.

1. Conclusion

The teacher asks the students if they know of other simple ways of protecting birds. The students can mention, e.g. putting up nesting boxes for hollow-nesting birds, putting out food for birds, or setting up water on hot days, encourage our parents not to fell trees and practise sustainable agriculture.
Dangers to the Spring Alive birds and how we can protect them  Worksheet 1.

1. The period of migration is a very difficult time for birds. What are the dangers for a White Stork during migration?

   a) 
   
   b) 
   
   c) 

2. One way of helping birds is to give them a safe place to build their nests. Connect the pictures with the blank spaces in the red outlines and work out how to help the White Stork, the Swift and the Barn Swallow. Write the name of the bird that builds a nest like that above the pictures.

   a) 
   
   b) 
   
   c) 

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Dangers to the Spring Alive birds and how we can protect them  Worksheet 2.

3. Look at the drawings. In the box next to each one draw ☑ if the situation in the drawing is good for birds and ☑ if it's bad. At the side write down what danger is being shown in the picture.

a) ______________________________________

b) ______________________________________

c) ______________________________________

d) ______________________________________
Teacher’s Card: Card for the educational game “What do I know about white stork, barn swallow, common cuckoo, common swift and bee-eater?”

I. COMMON CUCKOO

1. It is generally known for stealthily laying its eggs in the nests of other species, and it signals its arrival to breeding-grounds with the characteristic cuckoo sound, but in Africa they do not call.

2. It can be recognized by its “fluttered” flight (quick, shallow flapping of wings).

3. This bird lives in the various types of habitats such as wooded and derived savanna and in cultivated areas in forest, but it can also be seen in municipal ecosystems.

4. The bird is the size of a pigeon, with a slender figure, rounded tail, grey or sometimes rusty upper part of its body, the lower part of its body is white with transverse, dark strips.

5. It eats mainly hairy caterpillars of butterflies with vivid, warning colours avoided by other birds.

6. It is a brood parasite laying its eggs in the nest of other birds, whose eggs have been noticed in the nest of 100 bird nests in Europe.

7. The common cuckoo from the western region of Europe migrates to the sub-saharan part of Africa to winter. Some winter at the eastern part of Africa or south of the Equator as well. It flies in a wide front. It is rather secretive during migration. The length of its migration is 4500 - 1200 km.

8. When it is time to migrate to Africa from Europe, the adult migrate alone and first leaving the juveniles behind which migrates later.

II. EUROPEAN BEE EATER

1. This species is mainly encountered in warm regions of southern and south-eastern Europe. The most numerous populations settle the Iberian Peninsula, the Balkan Peninsula and the eastern borders of the Continent. In Africa, large populations can be found in Namibia, Botswana, Zimbabwe, Mozambique and north-eastern and central South Africa, avoiding excessively arid or wet areas.

2. This bird species, breeds in part of North Africa (east of Morocco to Libya); recently it has been found that some breed in South Africa and Namibia. Kruger national park in South Africa and Murchison fall national park of Uganda are good sites for this bird species.

3. One of our most colourful birds. It lives in open, sunny areas abounding in earth crags and slopes, it willingly settles in gravel-pits.

4. It has a russet and brick-red head and neck, white forehead, a red eye placed in the black band, a long, black beak, slightly crooked downwards. Its chin is lemon yellow, separated by a black band from the sapphire blue bottom of the body.

5. Both birds in the pair using their beaks and claws dig a horizontal burrow about 70-80 cm long and 7 cm in diameter in a slope. The couples begin to dig several corridors, but they finish off only one.

6. Their food consists of large flying insects caught in the air. They are mainly dragon flies and bumble-bees and locust. Bees, wasps and other species with stings are neutralized by birds who repeatedly hit them on branches.

7. The young females which do not breed help in sitting eggs and feeding of nestlings in breeding colonies. They contribute to the enlargement of the breeding success.
III. COMMON SWIFT

1. In the past this bird appeared only in the mountains and in rocky areas, but at present it lives mainly in cities and towns. High, concrete blocks of flats remind rocks and ventilating openings - cracks in which it originally nested.

2. The anatomy of its legs also shows adaptation to clinging on walls and rocky environment, because all four toes are directed to the front so that it can cling more easily to perpendicular surfaces.

3. The anatomy of its legs makes it impossible for the bird to sit on the branches or move on the ground. That is why these birds spend the most of their life in the air.

4. These birds not only feed and mate on the wing, but they also sleep in this way. They spend nights at the height of 1-2 thousand meters over the ground, raised by the warm airflows.

5. Its nest is a flat, small goblet built from small grass, horse hair, feathers stuck together with saliva, placed in a wall crack, under tiles, sometimes in anest box or in a hollow.

6. The bird is similar to swallows, however, somewhat larger and with uniform dark black and brown feathers. It also differs from them by the crescent like shape of its wings, an imperceptibly forked tail, lack of white colour on the bottom of its body, with only white throat.

7. From the beginning of May, Common Swifts can be seen and heard (lengthy screams) in towns and cities in Europe. From the end of September, they are seen and heard in southern Africa like Zaire, Tanzania, southern Zimbabwe and Mozambique.

8. When there is a weather breakdown during the breeding season, the birds can feed even 2000 km away from their nests. In this time, the young ones enter a coma like-condition, in which they reduce their body temperature and limit all life processes to a minimum level.

IV. WHITE STORK

1. Males are slightly larger than females. The bird’s plumage is completely white, only quilts are black. Adult individuals have red beak and legs, which are initially black in the young ones.

2. Adult individuals are practically mute, they sometimes only hiss. They give universally well-known clattering, by clashing the two halves of its beak and bending its head backwards.

3. Their nests are built with sticks and are 30 meters above the ground in trees, roof tops as well as pylons, telegraph poles and other anthropogenic high structures. Their nesting sites are usually situated close to their foraging grounds but 2-3 km away. It nests in loose colonies comprising of 30 breeding pair or solitarily.

4. The condition of the population of the White Stork gives information about the general state of natural environment.

5. They feed on small mammals (common voles, mice, moles), amphibians, reptiles, fish, insects, earthworms.

6. They depart Europe in August but arrives Africa early October in large flocks. Juveniles are said to remain in Africa during the northern summer. The tiny population in southern Africa breeds from September to November.

7. Once in Africa, it becomes nomadic following the changing abundance of food: locust. The feed solitarily or in groups of 10-50 individuals or large groups depending on the abundance of food and they roost communally at night on a tree.

8. In the wintering ground, the species shows preference for drier regions, visiting savannah, cultivated lands and have been seen around lakes, rivers, ponds and small streams.

V. BARN SWALLOW
1. Just like common swift it has narrow and sharply ended wings and spends the whole day on the wing, it even drinks water on the wing. It reluctantly sits on the ground, most often when it picks mud pellets to build the nest.

2. Its legs are weakly developed as a result of adaptation to the aerial lifestyle. It most willingly sits on wires, because its tiny fingers do not allow it to grasp thick branches.

3. Its profile stands out because of its forked tail with strongly elongated extreme flight feathers, which are clearly longer in males.

4. The top of its body is navy blue and black with metallic gloss and white spots on the tail.

5. Its forehead and throat are rusty red, with a navy blue breast band, and a white belly.

6. Rocky walls with niches and cracks and clay crags were its original habitats.

7. At present it nests almost exclusively in habitats created by man, avoids dense forest and occupies open low vegetation habitat such as the savannah.

8. It builds a cup nest open at the top from clay and mud, strengthened with grass, which is most often stuck to the internal walls of utility buildings (cowsheds, stables, barns), but also on and in residential buildings, and under bridges as well.

9. They winter at the southern part of the Sahara and South Africa, and birds from different breeding ground winter at different part of Africa.

10. In Africa, their survival rate is affected by rainfall as their mortality increases with reducing amount of annual rainfall.

11. It congregates in large areas roosting in large numbers on wire and reed beds. It has been estimated that a large size of 1.5 million birds roost in Nigeria.

12. While in South Africa, there can be up 3 million of barn swallow roosting at the Lake Victoria wetland and Mt Moreland by November. They form a wonderful sight for viewing when returning to their roost, and have attracted world-wide attention as a Natural Wonder and Global Treasure.

Pupil’s Worksheet: What can we learn traveling with birds
<table>
<thead>
<tr>
<th>Name of the species</th>
<th>In native language</th>
<th>Scientific (Latin)</th>
<th>In English</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Task no.</th>
<th>Task</th>
<th>Fill in</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mark on the map the place of your residence (region). In next column, write the locality, region and country where you live e.g.: Nigeria, Mauritania, Kenya, Senegal etc.</td>
<td>Localy ..................................&lt;br&gt; Region ..................................&lt;br&gt; Country ..................................&lt;br&gt;</td>
</tr>
<tr>
<td>2.</td>
<td>Mark with black lines with arrow basic spring migration routes of the species.</td>
<td>Wintering areas ..................................&lt;br&gt; Breedinggrounds ..................................&lt;br&gt;</td>
</tr>
<tr>
<td>3.</td>
<td>Using map name the wintering area (areas) and breeding grounds of the species.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Using atlas calculate approximate length of migration route to be covered. Write the result in the next column.</td>
<td>..................................&lt;br&gt; km</td>
</tr>
<tr>
<td>5.</td>
<td>Using general map write names of geographical regions it has to fly over during migration.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Using map of Earth give climatical zones across which it has to fly over during migration.</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Write names of the countries over which it flies while returning to your locality.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Give threats it is subject to during migrations.</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Using migration map <a href="http://www.springalive.net/world/migrations">http://www.springalive.net/world/migrations</a> follow the present state of migration of this species, observation statistics for your country, region.</td>
<td>State of migration on (date) ..................&lt;br&gt; % of observation for the species ..................&lt;br&gt; Number of observations in the country ..........&lt;br&gt; Number of observations in the region ..........&lt;br&gt;</td>
</tr>
</tbody>
</table>

Sfinansowano ze środków Narodowego Funduszu Ochrony Środowiska i Gospodarki Wodnej

Partner akcji: The Mitsubishi Corporation Fund for Europe and Africa

For further information please contact birdlife-africa@birdlife.org
"What can we learn travelling with birds?"

Work card no. 2b

Barn Swallow
- breeding grounds
- Wintering grounds
"What can we learn travelling with birds?"
Work card no. 2d

Common Cuckoo
- Breeding grounds
- Wintering grounds
For further information please contact birdlife-africa@birdlife.org
"What can we learn travelling with birds?"

Work card no. 2a

White Stork

- breeding grounds
- wintering grounds

For further information please contact birdlife-africa@birdlife.org