

Miracle Bird migration

Handout for EcoClubs



World Migratory Bird Day (WMBD) is an annual awareness-raising campaign highlighting the need for the conservation of migratory birds and their habitats. It has a global outreach and is an effective tool to help raise global awareness of the threats faced by migratory birds, their ecological importance, and the need for international cooperation to conserve them.

Every year people around the world take action and organize public events such as bird festivals, education programmes, exhibitions and bird-watching excursions to celebrate WMBD. All these activities can also be undertaken at any time on the year. Countries or regions observe the peak of migrations at different times, but the main days for the international celebrations are on the Second Saturday in May and in October.

(<http://www.worldmigratorybirdday.org>)

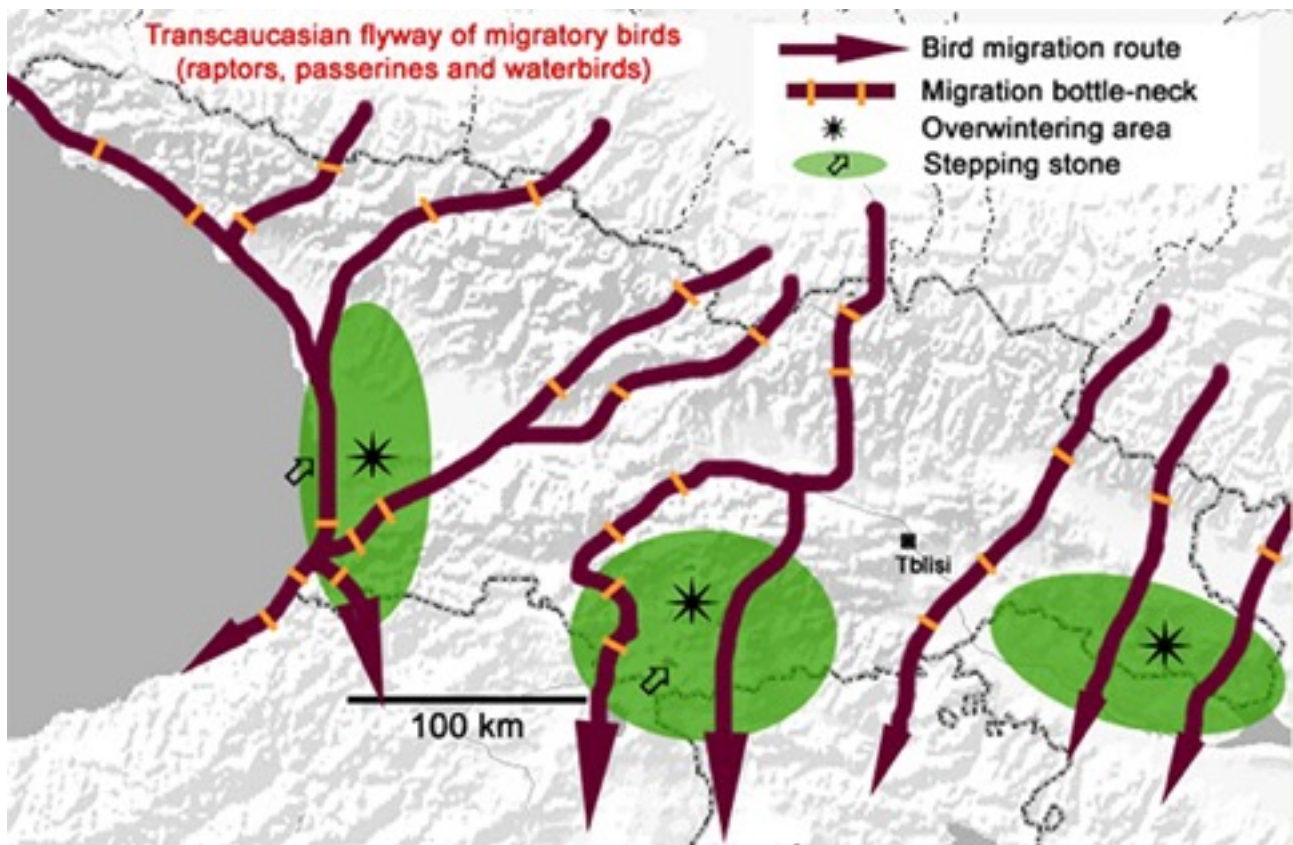
With this handout we provide you with a short introduction to the topic as well as a few ideas what you can do with your pupils.

Enjoy the birds!

Your SABUKO team

For bird lovers all over the world, Georgia is clearly on their map. The Batumi bottleneck, where millions of birds of prey make their way south from the Russian forests and plains to their warmer African wintering grounds, becomes an ever more attractive destination for ornithologists in autumn. It never fails to impress, when huge flocks of big birds fly over.

But Batumi is not the only place where migration can be observed. The Batumi bottleneck is part of a larger flyway across the Trans-Caucasus. Smaller concentrations can be observed across inland regions as well.



But only those birds depending on specific thermic conditions migrate during daytime. Raptors, storks and cranes for example need the warm air to glide on for less need of energy. By far the majority of birds actually migrate during nighttime. The advantage for them: less wind, cooler conditions, and less enemies. They use the day time to fuel up. And this is, when we get aware of them. Huge flocks of starlings coming down at farm sides for example. Suddenly the air is filled with glück-glück calls of bee-eaters again. All this smaller birds lining up on overland electric wires.

GREAT NAVIGATORS

All birds have an innate migratory pattern specific to their species: they are guided by their senses. They have a migratory instinct. Departure period, direction and distance are qualities that most bird species inherit. They use the sun to navigate on a clear day, and the stars as their guides during nighttime flight. Their innate sense of direction shows them the way in bad weather – especially when traveling short distances. With tiny iron parts in their bodies they can detect the varying magnetic fields depending to their positions.

For birds like cuckoos, who travel without their parents, the genetic deposition guides the way. Birds traveling in big flocks, learn from their peers the best travel routes and wintering sides.

MORE MIGRANTS IN AUTUMN

In central Europe, peak migration season is in early October. But some species leave as early as August. Batumi sees the passage of virtually the entire eastern population of Honey Buzzards in late August. Rosy starlings, a common sight in the steppe of Eastern Georgia, also leave already in August.

Many more birds can be seen during the fall migration than during the spring migration. In the fall, countless young birds join the older birds, which is why twice as many birds migrate after breeding season in the summer.

JOURNEY OF DANGER

The long and tiring journey across many countries comes with its own set of dangers, the majority of them are man-made. Many large birds perish by getting caught in power cables and poorly insulated power masts. The conditions at the stopovers and hibernation areas determine whether or not the birds make it to their final destinations. Poaching is a major problem. Birds are trapped using firearms, nets or lime stick traps. Climate change can also result in an imbalance in the migration patterns of the birds, meaning they arrive too late in breeding areas and are thus unable to find sufficient nourishment.

LOCAL MIGRANTS

But, not all birds are long distance travelers. Some species only change their location. Here in the Caucasus, such species found in summer only in really high altitudes come to lower grounds where they still find enough food. The Gldenstdt's redstart is for example such bird. While it feeds on insects and its larvae or spiders on altitudes from 3,600–5,200 m over summer, it moves to the subalpine seabuckthorn shrubs for the berries when the alpine meadows and rock fields are covered with snow.

FLYWAYS

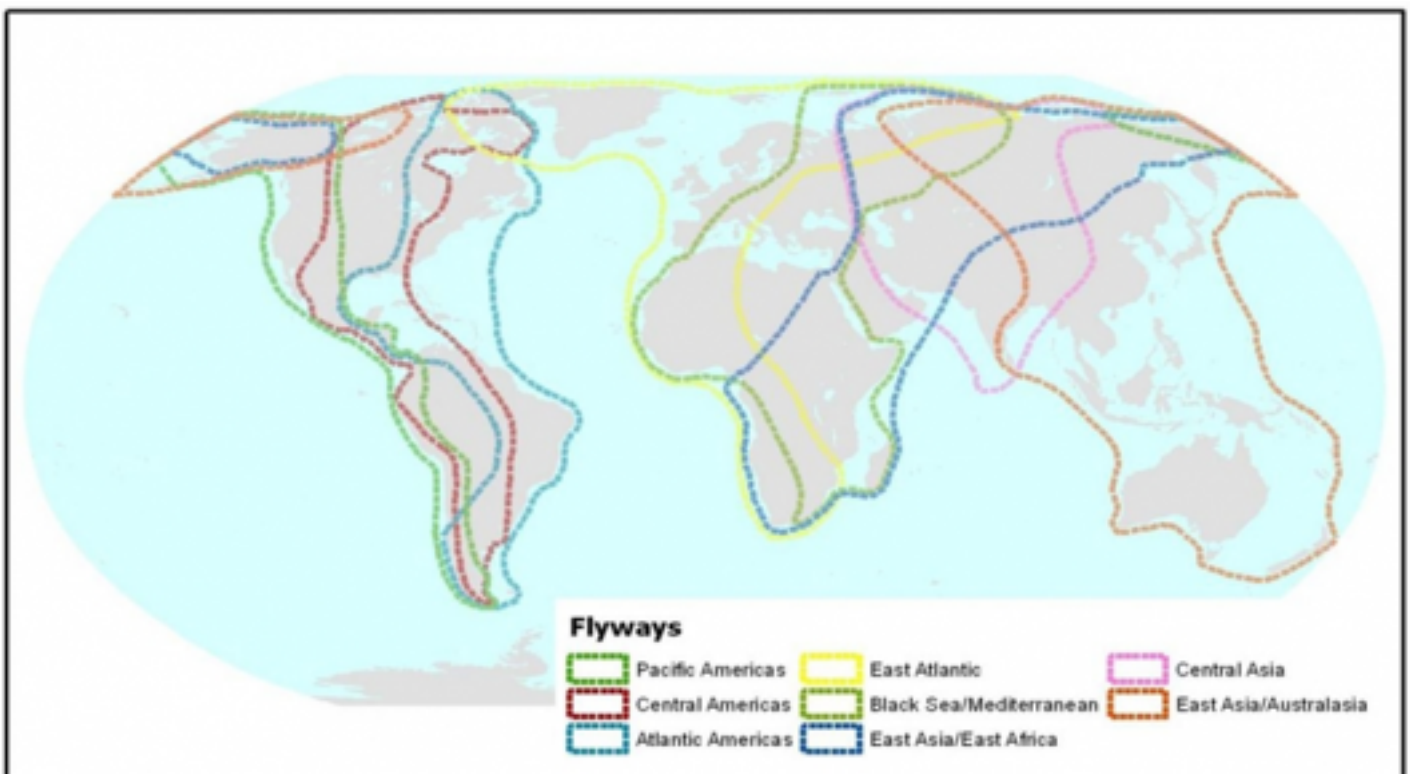
The BirdLife Flyways Programme is working on the ground to protect chains of Important Bird & Biodiversity Areas (IBAs) that are critical for migratory birds, and to reduce threats along these routes.

Analyses of the data that BirdLife compiles for the IUCN Red List show that migratory birds have become more threatened since 1988, with 33 species moving to more serious threat categories, and just six improving in status.

Many of these declining species were once common, and their arrivals and departures are significant cultural events throughout much of the world.

Their disappearance from the landscape was unthinkable 30 years ago, but is now a real prospect without concerted action.

Afro-Palearctic migratory birds have suffered substantial declines over the past 30 years owing to reduced over-winter survival in Africa, habitat degradation in Europe, hunting and the effects of climate change.



(<http://www.birdlife.org/worldwide/programme-additional-info/migratory-birds-and-flyways>)

Activities

Flyways

Research task

Provide your students with a map. Let them select migratory bird species. Have them research about the migration route their selected bird takes and the challenges they face along the journey. Have them introduce cultural aspects of the countries the birds fly over.

Art Work

Have your students create their own map showing to their peers the flyways of the world. They do not have to be technical. Encourage them to be creative. Add migrating flocks, distribute challenges, ...

Have your students create paper birds and distribute them in the school hallway. This may start discussions with other students from your school. Let them be the messenger of migratory birds.

Bird Walk

Simply go out birdwatching. May be one of the IBAs is near your school. Go visit. Have your students keep a bird logg.

You can find the IBAs of Georgia under <http://aves.biodiversity-georgia.net>

Migration Game

People, as migrating birds, move through a game-board riddled with challenges and different situations.

Preparation

Can be played inside (gym, hallway, auditorium) or outside. Mark a 'migration path'. Prepare playing cards. You will also need a 6sided dice.

If your group is rather big, use two routes so more groups can play at the same time. The playing field should be large enough for about 5 people to stand together in each square.

How to play

1. Welcome to the Bird Migration Game! - the game about adventure and challenge.

If you have not introduced bird migration in your group before, ask, if they know what migration is. If not, explain that it is a behavioral adaptation that allows birds to survive when food and other resources are hard to find during the winter. It is kind of like bird vacation. When the weather turns colder and food is harder to find, birds fly (migrate) to warmer areas that have more food. After a few weeks or months, they head back home where they nest and lay eggs (breed). Some birds travel up to 10,000 miles (one way!) during their migration! During such a long flight, birds encounter many different adventures along the way from crazy weather to

overly playful housecats. Lets see what exciting things happen during YOUR migration!

2. Explain the rules:

- Each team rolls a die to move forward. Once on a square, someone from the group will choose a card from the pile.
- The goal of the game is to migrate all the way to the end.

3. Continue shuffling and dispensing cards until every team has either not made it or crossed the finish line.

Conclusion:

Congratulate them on their journey. Discuss what affected their migration. What things helped them along the way? What made it challenging?

Migration cards:

<p>You have found a great wind that pushes you along. Move ahead 2 spaces.</p>	<p>You run into a large patch of fog and get turned around. Move backwards 1 space.</p>
<p>You follow a mountain chain and hit some rough wind. Your wings get incredibly tired. Lose a turn to stop and rest.</p>	<p>Clear skies and warm temperatures make for perfect flying weather. Move ahead 2 spaces.</p>
<p>A huge coastal storm blows you out to sea. Your whole flock does not make it to their migration spot. Game Over.</p>	<p>Clear skies and warm temperatures make for perfect flying weather. Move ahead 1 space.</p>

<p>You leave just ahead of a high-pressure system and have a few great days of travel weather. Move ahead 2 spaces.</p>	<p>You fly through a strong storm and lose your way. Move backwards 2 spaces.</p>
<p>You find many bird feeders and bird baths to stop and rest at along the way. Move ahead 1 space.</p>	<p>Heavy rain makes flight and visibility impossible. Move backwards 1 space.</p>
<p>Flying along a mountain chain, you find some great updrafts that keep wings from getting tired. Move ahead 1 space.</p>	<p>A strong wind is pushing against you and you make very little progress. Stay where you are.</p>
<p>A cat pounces on you during the night and injures your wing. Move back 2 spaces.</p>	<p>A strong wind pushes you hard into a cell phone tower. Move back 1 space.</p>
<p>You have had a good rest in a sturdy tree. Move ahead 1 space.</p>	<p>Your favorite resting forest has been replaced by a shopping center. Move back 2 spaces.</p>

<p>A quick rest and snack at a beautiful wetland leaves you feeling refreshed. Move ahead 1 space.</p>	<p>The bugs you just ate were covered in pesticides (bug killing chemicals). Your tummy hurts. Stay where you are.</p>
<p>A quick dip into the cool waters of a wetland leaves you feeling rejuvenated. Move ahead 1 space.</p>	<p>You find a birdfeeder filled with delicious treats. Move ahead 2 spaces.</p>
<p>You are attacked by a hawk, but finally make the escape. Lose a turn to stop and rest.</p>	<p>You became victim of the hungry hawk. Game over.</p>
<p>Many seeds, berries and insects are available in a yard with a wildlife garden. Move ahead 2 spaces.</p>	<p>You are almost caught by a cat and sprain your wing in the escape. Move back 2 spaces.</p>
<p>You land by a polluted pond and become sick from drinking the water. Move back 2 spaces.</p>	<p>You are catching insects near a road when you are almost hit by a car! You are not badly hurt, but you are sore and dazed. Lose a turn to stop and rest.</p>

<p>While migrating at night, you become confused by bright lights in a big city. Move back 1 space.</p>	<p>You get covered with oil from a spill and you can't fly or keep warm. Game over.</p>
<p>You just collided with a window on a house. Move back 1 space.</p>	<p>You land in a wildlife refuge. Move forward. 1 space.</p>
<p>You got shot. Game over.</p>	<p>Beautiful, warm weather and a good tail wind help you fly.</p>

Ressources

<http://www.worldmigratorybirdday.org>

<http://www.birdlife.org/worldwide/programme-additional-info/migratory-birds-and-flyways>

<http://aves.biodiversity-georgia.net>

<http://www.sabuko.ge>



Partnership for
nature and people