

Aquatic warbler

Small guide for children



The preservation of this small, rare bird has become a real challenge for naturalists. How do you save the Aquatic warbler so that future generations can enjoy its mild song?



Including a small dictionary and nature learning activities.



Great snipe – *Gallinago media*

27–29 cm. Rare. Its song sounds like spilled beads, and sometimes rattles its beak.



Western marsh harrier – *Circus aeruginosus*

48–56 cm, and up to 1.3 m with spread wings. Widespread. Bird of prey. It has a squeaky voice.



Birds

Know the neighbours of the Aquatic warbler

Common snipe - *Gallinago gallinago*

25–27 cm. Uncommon. Its typical sound reminds of goat bleat sounds, which it makes with its tail feathers while flying.



Common reed bunting –
Emberiza schoeniclus

15 cm. Widespread. Casual reed bird.
Calls “siü, siü, siü” or “bzü, bzü, bzü”.



Common grasshopper warbler –
Locustella naevia

13 cm. Uncommon. Calls during evening and night-time. Its song is like a grasshopper’s squeal and goes “sir’r’r’r’r’r’r”.



Sedge warbler –
Acrocephalus schoenobaenus

13 cm. Widespread. Closest sibling of the Aquatic warbler, but has no light stripe at the top of the head. Calls “zrü-zrü-trett zrü-zrü-trett zrü-zrü-psit trutrutru-pürrrrrrr vi-vi-vi lülülü zetre zetre”.



Birds

Know the neighbours of the Aquatic warbler

Short-eared owl –
Asio flammeus

36–39 cm. Rare. Lives in meadows, not woods. Hunts during the day. Young owls hide in grass. Calls with a quiet, deep “uh uh uh uh uh”.



Spotted crane –
Porzana porzana
22–24 cm. Rare.
Afraid of people.
Calls “huitt, huitt,
huitt” at night.



Birds

Know the
neighbours of
the Aquatic
warbler

Meadow pipit –
Anthus pratensis
14–15 cm.
Widespread.
Calls “tsi-tsi-tsi”
while he is flying in
his marital dance.



Western yellow
wagtail –
Motacilla flava
17 cm. Uncommon.
Lemon yellow. Calls
with a characteristic
high-pitch “jeet”.



Black-tailed godwit –
Limosa limosa
70–80 cm. Rare. A noisy
bird. Its most common
call is a strident “Weeka,
weeka, weeka”.



Northern lapwing –
Vanellus vanellus
28–31 cm. Uncommon.
Calls “pee-wit, pee-wit”
when flying.



Corn crane –
Crex crex
25–28 cm. Uncommon.
Hides wonderfully in the
meadows. Calls with a
loud “krek krek”.

Birds

Know the
neighbours of
the Aquatic
warbler



Eurasian beaver – *Castor fiber*

Weigh 15–20 kg. Live near water and are active at night. Eat tree bark and roots, and store food for wintertime.



Roe deer – *Capreolus capreolus*

Hoofed mammals, weighing 20–36 kg. Live in forests, meadows, bushes, and sometimes visit swamps. Eat grass and young branches.



Common vole – *Microtus arvalis*

Weigh around 20–30 g. Live in small caves or tree holes. Eat seeds, buds, and bark.



Mammals

Know the neighbours of the Aquatic warbler



Common shrew – *Sorex araneus*

Similar to mice, and weighing around 10 g. Eat insects and sometimes eat young Aquatic warbler juveniles.

Moose (elk) – *Alces alces*

Large hoofed mammals, weighing 200–500 kg. Live in forests, and sometimes visit wet meadows. Eat grass, tree branches, buds, and need up to 13 kg of food per day.

Insects and arachnids



Grasshoppers – *Tettigoniidae*

Insects. Body length 2–4 cm. Predators. They make a chirping sound by rubbing two parts of their body together.

Beetles – *Coleoptera*

Have six legs. A couple thousand species of beetles live in Lithuania. Some of them live in the meadows and are an important source of food for birds.



Spiders – *Araneae*

Have eight legs. A couple hundred species of spiders live in Lithuania. They weave webs and catch other small animals.

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Aquatic warbler portrait

It's often thought that rare birds are large and exotic. But there are also small and modest-looking ones, seen by only the most persistent nature observers. One such bird is the main hero of this book. We invite you to meet one of the rarest European birds – the Aquatic warbler. If you are patient enough, you might even hear its song.

In countries where the Aquatic warbler breeds (*see the map in the page 19*), the same warbler genus is represented by the Sedge warbler, Blyth's reed warbler and Marsh warbler, as well as the Eurasian reed warbler and the Great reed warbler. But the Aquatic warbler is seen less often than its relatives.

Look at the picture and learn how to recognize the warbler!



Learn!



The Aquatic warbler is 13 cm long, but it weighs only as much as a spoonful of sugar. It is three times lighter than a sparrow.



Find 8 differences

How many names does it have?



Take note the Aquatic warbler's name in different languages, and search for its picture on the Internet:

Lithuanian – *meldinė nendrinukė*

Polish – *Wodniczka*

Belarusian – *Vertliavaja charotauka*
(вяртлявая чаротаўка)

German – *Seggenrohrsänger*

Latin – *Acrocephalus paludicola*

Russian – *Vertliavaja kamyshovka*
(вертлявая камышовка)

Interesting!



There are only between 22,000 and 32,000 Aquatic warblers in the world. There are 600 times as many Sedge warblers, their closest relatives. Compare that to the larks, with up to 530 million individuals of their species! Just imagine – that's almost one bird for each person living in the European Union.

Learn!



Aquatic warblers are at the brink of extinction: not so long ago they bred in eight European countries. Currently, they are breeding only in Lithuania, Belarus, Ukraine and Poland. See map on page 19.

What is the difference between the species of birds?

All birds are close relatives, but everybody knows that they not only look different, but have adapted to different environments and eat different stuff. Predatory birds, such as hawks and owls, sometimes feed on other birds.

Aquatic warblers belong to the group of singing birds. They are part of the richest order of birds – the Passerines. It includes small birds like tits, swallows, thrushes and even crows.

Nevertheless, they are so different!



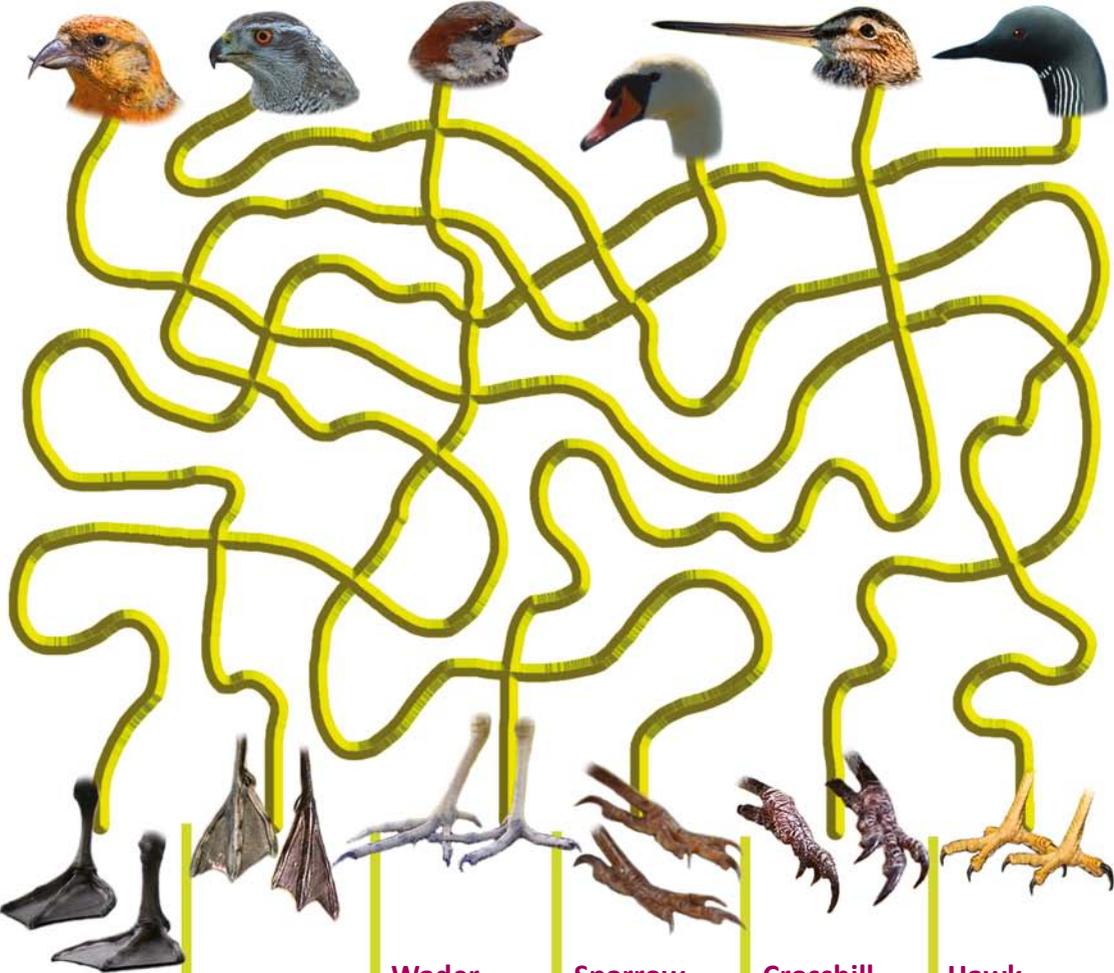
Scientists first described the Aquatic warbler in the 18th century. It was at about the same time as James Cook was been exploring the world and the air balloon and steam engine were invented.





Who has lost his head?

The heads and legs of different birds have been mixed up in this picture. Correctly connect them and find out what the owners of those body parts eat and where they live.



Swan
Grass feeding. Picks and grinds water plants with its beak. Legs are adapted for swimming.

Loon (diver)
Eats fish. Catches prey with its beak. Legs are adapted for swimming.

Wader
Searches for small prey in soft soil and sludge with its beak. Legs are adapted for walking in water.

Sparrow
Eats seeds, small worms and bugs. Legs are adapted to grabbing tree branches.

Crossbill
Eats seeds, beak suited to shelling conifer cones. Legs adjusted for climbing tree branches.

Hawk
Bird of prey. Tears its prey with its beak. Muscular legs are adapted to grabbing prey.

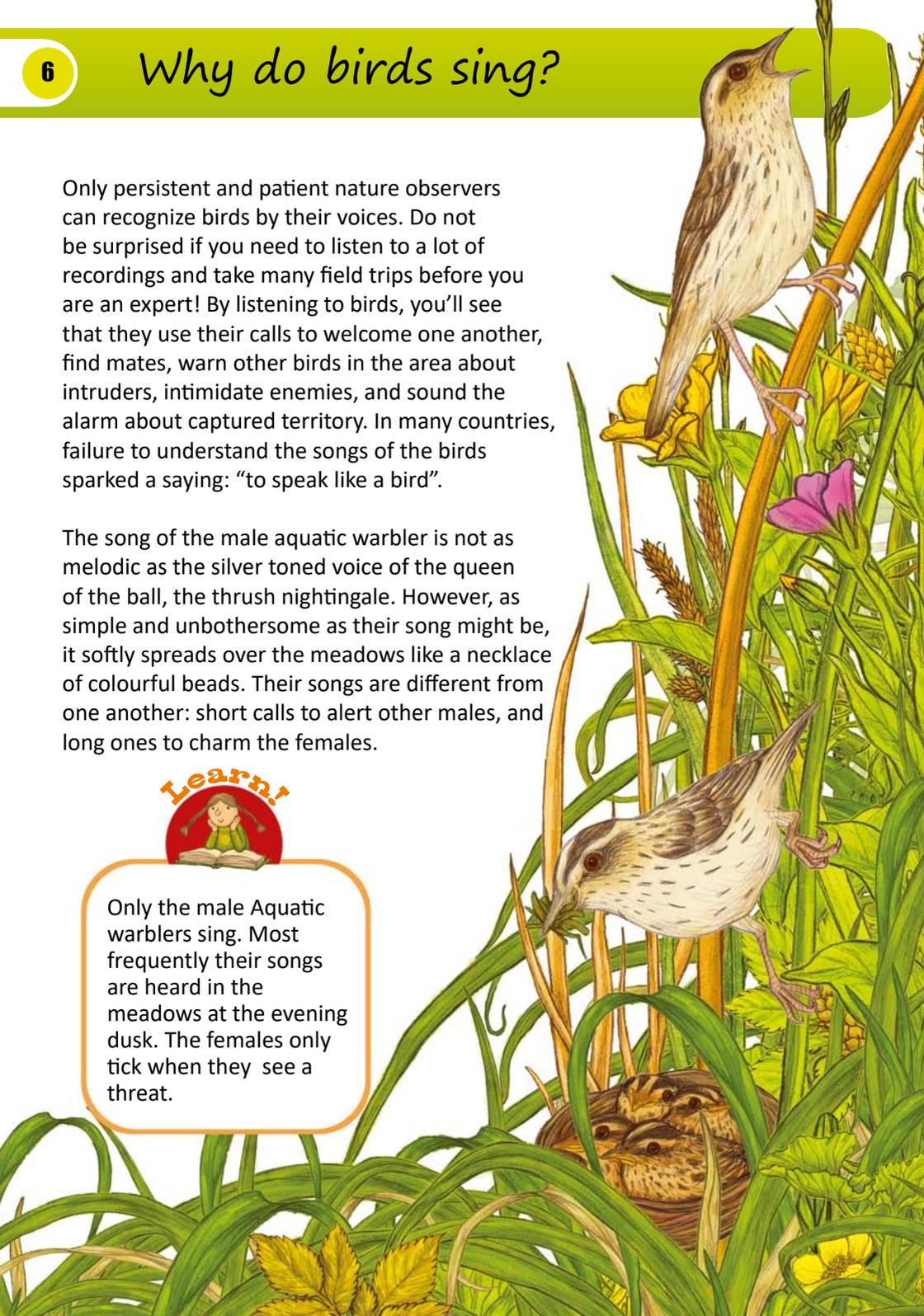
Why do birds sing?

Only persistent and patient nature observers can recognize birds by their voices. Do not be surprised if you need to listen to a lot of recordings and take many field trips before you are an expert! By listening to birds, you'll see that they use their calls to welcome one another, find mates, warn other birds in the area about intruders, intimidate enemies, and sound the alarm about captured territory. In many countries, failure to understand the songs of the birds sparked a saying: "to speak like a bird".

The song of the male aquatic warbler is not as melodic as the silver toned voice of the queen of the ball, the thrush nightingale. However, as simple and unobtrusive as their song might be, it softly spreads over the meadows like a necklace of colourful beads. Their songs are different from one another: short calls to alert other males, and long ones to charm the females.



Only the male Aquatic warblers sing. Most frequently their songs are heard in the meadows at the evening dusk. The females only tick when they see a threat.





Learn to speak bird language

It is much easier to hear a lot of birds than to actually see them. However, you'll need good hearing and experience to do so. Try to record bird sounds in different ways.

With letters: For example, the Aquatic warblers' song is recorded by the naturalists like this:

trrrr – ju ju ju – di di di

Signs: Mark a short syllable as a dot and a long one as a dash. The Aquatic warbler sings approximately in this pattern:

— • • • — • • •

Voice recorder: If you have a phone with a voice recorder, try to record the voices of the birds and compare them to the ones found on the Internet to learn how to recognize them.

Notes: Play the song with an instrument and guess which bird's song is recorded.



Learn from me and you can sing at home.



Find a recording of the Aquatic warbler songs and try to remember it. Ask your music teacher to write it in notes and play them on a musical instrument. Imagine how it sounds in the field. Would you recognize this sound from the songs of others? You are almost ready to go on a field trip and listen to the birds.

Getting to know the meadows

In your pursuit to know the meadows better, you will find out that meadows can be very different. Sandy meadows smell of thyme, dry ones with wisps and moist ones have rare flowers blooming, like local orchids – the dactylorhizas. Aquatic warblers are very careful when choosing their home – they are only found in moist sedge-growing areas. Such meadows will be easier to recognize by using the guide to plants provided at the cover of this book. It's pointless to search for them in reeds, since they do not breed there.



Natural meadows host a wide variety of plant species. Manmade seeded lawns have far fewer species of plants.



Find a lawn near your home and count the species of grass that grow there. Maybe your parents take care of that lawn? Take notes on the way it is treated, how it's maintained, and what it needs in order to grow. How does the lawn differ from the meadows near the forest or fields?





Meadow diary

Mark a piece of a meadow by poking small sticks into a plot of land and watch it from spring to autumn. Record what the plants look like, and when. Repeat this experiment in other places, and compare them. Take photos of the plants and put together an album.

The birds are disappearing with the meadows



Why do Aquatic warblers choose only wet meadows? There are a few reasons. Not only do these meadows host a rich variety of plants, but also insects and small animals, which are the main source of food for these birds. Humans are also important to the Aquatic warblers! Sites that are constantly used for hay collection lack bushes and old grass is rare to find; therefore, plant seeds can germinate – thus restoring the vegetation.

The high stem of sedge is like a launching pad for tiny birds. These plants are comfortable to climb in search of insects, and they are also a comfortable place to oversee their territory from. However, the numbers of such meadows are dwindling; in fact, they are considered nearly extinct. It's no surprise that Aquatic warblers are going extinct with them.



There are approximately 2,000 different species of sedge growing in the world. It is hard to tell them apart. Sedge has a typical three-sided stem with narrow, sharp leaves, and often grows in tussocks in wet meadows and swamps.

See the plant guide at the cover of the book.

For a long time, the meadows where Aquatic warblers live were used to collect hay to feed cows. The grass was cut when the meadows became dry – in July and sometimes August. The hay was piled in the fields and then taken home during wintertime, whenever the ground was frozen. Unmown fields grow up by reeds and bushes, and the birds lose their homes and move away.



Act! *Stray plants*

The meadow favoured by Aquatic warblers has been invaded by 6 species of plants that are not native to that habitat. Learn where they usually grow and return them home!

Record the names of the plants in appropriate boxes.

C						
P						
O						
T						
P						
C						



Is everyone needed in the meadows?

Learn!



Humans are the most dangerous to Aquatic warblers when they stop collecting hay and mowing the site and it gets contaminated by reeds, or when the site is mowed too early, while the youngs are still in their nests.

Remember the menu of the Aquatic warbler! It would be easy if the food was served on a plate, like in the cafeteria. However, other birds and small meadow critters also feed on insects, so the warblers have to share their food at the meadow dining table. Insects and their larvae need to eat, too. Some of them eat plants; others eat each other. What a complex system!

It is clear that if this balance is lost, some of the meadow creatures will start dying out and the whole environment will change. People can also disrupt nature's connections; however, if they work hard they can also restore them. Although that is a much tougher task...

FLY



FROG



SHREW





Who feeds on who?

Here you can see a field where the Aquatic warbler lives together with its neighbours. Each of them searches for food. Help them – use arrows to specify who eats who.

Answers: Western marsh harrier – Common vole. Shrew – beetles, frogs, bird young. Snake – frogs, shrews, Common voles. Frogs – beetles, caterpillars, spiders. Spiders – beetles. Beetles – fly and butterfly – plants, and some other insects. Plants – receive nutrition from the soil and the energy from the sun.

BUTTERFLY



AQUATIC
WARBLER



WESTERN MARSH
HARRIER



BEETLE

SPIDER



AQUATIC
WARBLER
YOUNG



CATERPILLAR



COMMON
VOLE



SNAKE

Who are the Aquatic warblers hiding from?

Those little hiding birds! It is hard to spot an Aquatic warbler in the grass. This small bird would win a gold medal in a hiding contest – it can hide in the dense grass and create nests there. Here, it is hidden from predators, the young don't become overheated by the sun, and it is quite warm. Even during floods, water rarely reaches the tussocks.

Sometimes, though, the Aquatic warblers are preyed on by Western Marsh harriers or shrews. Humans can also be a threat if a tractor moves out to mow down grass when the young are still in the nests – all of the toils and worries of the bird family would be in vain!



Lay down in the meadows so that your face is amongst the high grass. What do you feel and hear? Now imagine that you are the juvenile of a small bird, waiting for your mother to come back to your nest... How do you feel when you are home alone?



Aquatic warblers' nests have three to six brown eggs. Their mother incubates them for two weeks. The newly born babies are then fed and taught how to fly for another four weeks. Be careful! If you notice a bird that is nervously flying and making sounds, it might be a mother – move away!





Act 1

Hide and seek

Find out what the eggs of different birds look like.

Cut out a couple of “eggs” from hard paper (you can also use empty hen’s eggshells), paint them with different colours and decorate them with stains.

Try to hide them in various places – at home, on lawns, in gardens, in meadows or in a tree. Find a colour combination that masks the egg best.

You can invite your friends to participate – will they be able to find what you have hidden?

Remember – never touch real bird’s eggs if you find them in nests!



I found three eggs and one frog.

Can I also play with you?





You can observe Aquatic warblers where they're breeding for only four months, from May to August.



Aquatic warblers do not pair. Only the female bird takes care of the young birds. Males do not help them at all. Compared to other birds, the males sing for quite a long time. Their voices are heard even in August, when other birds become quiet and prepare for migration.





My year and the bird's year

Compare your year to the year of the Aquatic warbler. Use symbols to mark your important dates on the calendar. How are you similar to and different from the Aquatic warbler? Why?

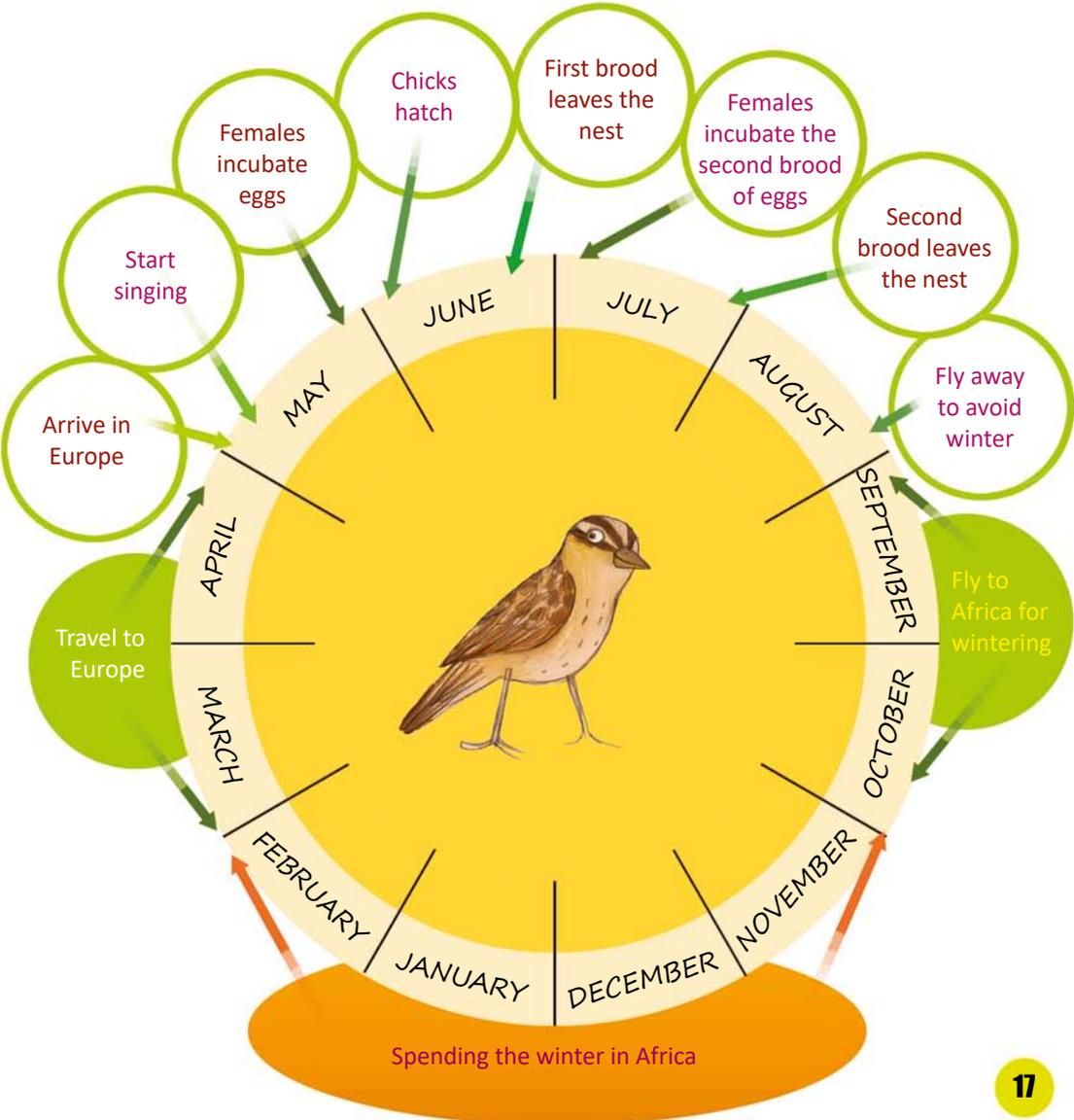
Birthday

Feasts

Holidays

Travels

Start of the school year



Where do Aquatic warblers spend the winter?

In Africa!

Whenever the air gets colder and food becomes scarce, the birds group up and fly south. The autumn bird migration season starts in September, and it amazes the scientists and us. Without any rest or map, birds can fly for thousands of kilometres, fly while sleeping, and return back home during spring.

Today we know that many Aquatic warblers from all over the world travel to their winter “resort” near the Senegal River at Djoudj National Park in the western part of Senegal. Another group flies to the Niger River in Mali. They return to their breeding grounds via a slightly different route during springtime.

Learn!

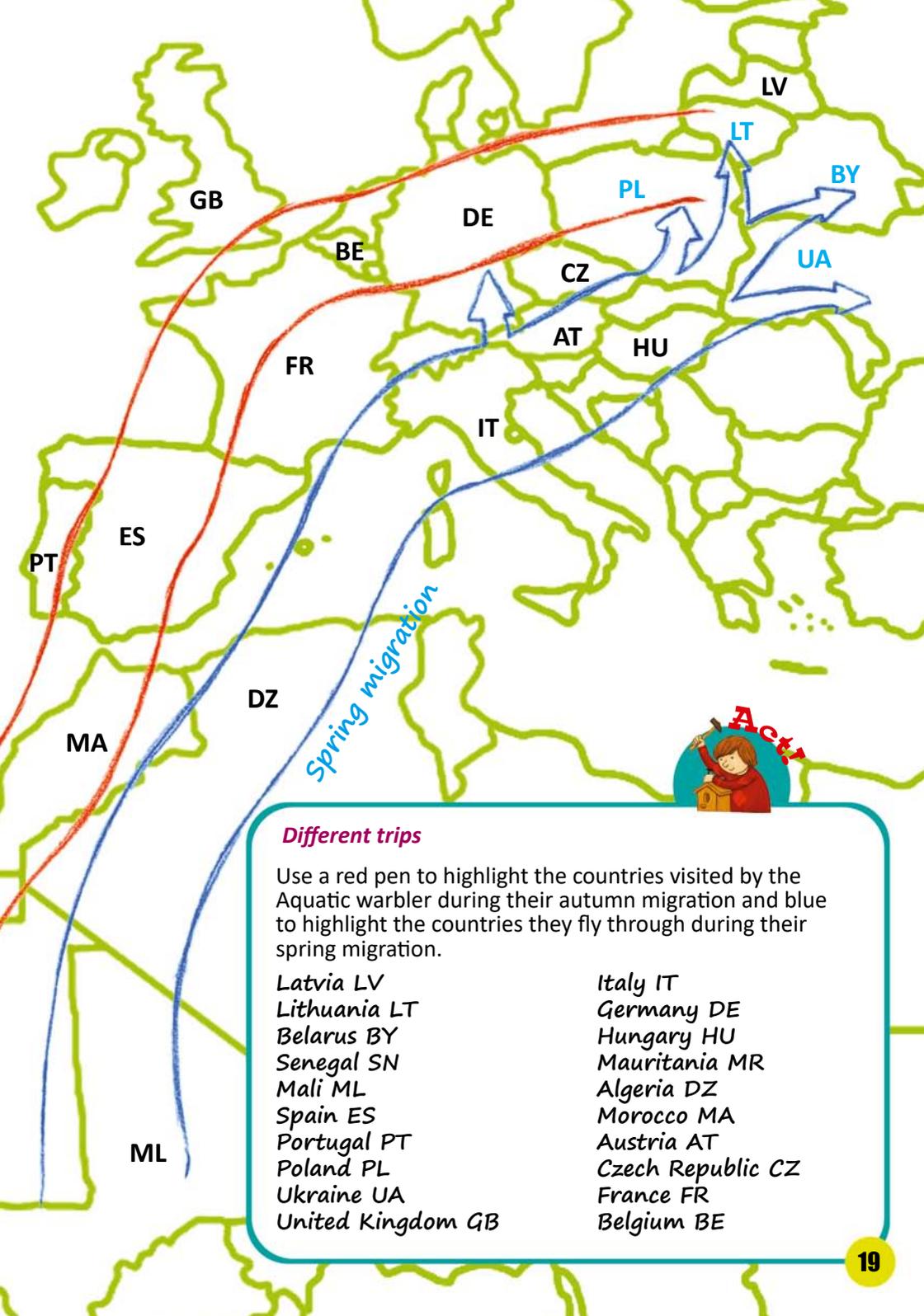


Aquatic warblers fly to Africa for two months and travel approximately 6,000 kilometres. They fly during the evenings and nights, and eat rather than sleep during the daytime. They do not come to Africa in flocks, but separately.

LT, BY, UA, PL –

Countries where Aquatic warbler still breeds





Different trips

Use a red pen to highlight the countries visited by the Aquatic warbler during their autumn migration and blue to highlight the countries they fly through during their spring migration.

Latvia LV
 Lithuania LT
 Belarus BY
 Senegal SN
 Mali ML
 Spain ES
 Portugal PT
 Poland PL
 Ukraine UA
 United Kingdom GB

Italy IT
 Germany DE
 Hungary HU
 Mauritania MR
 Algeria DZ
 Morocco MA
 Austria AT
 Czech Republic CZ
 France FR
 Belgium BE

What is Africa like?



We all imagine Africa differently, since few of us have actually been there, but we all know it is really huge. What do the Aquatic warblers see there? High grass grows and exotic water birds flock in the wet lowland meadows, where pythons and crocodiles lay around idly. Riverside trees are home to jumping monkeys. However, we can also see some friends from home: wagtails and warblers from Europe. This is the

impression that our little travellers bring with them when they return to Central and Eastern Europe in May! However, even here they face threats. The riverside meadows are turned into rice fields, sugar cane plantations, and used for animal herding. People build houses, and sometimes they face the deadly drought. It's sad, but some Aquatic warblers will not return to their homeland...



CORMORANT
 FLAMINGO
 GAZELLE
 HYENA
 CROCODILE
 BOAR
 PELICAN
 PYTHON
 MONITOR LIZARD
 SERVAL
 KINGFISHER
 EAGLE

Learn!



During its life, warblers travel 5 times to Africa and return to Europe.

Interesting!



Senegal is the size of three Lithuanias, similar to a country like Belarus. The country got its name from the largest river flowing through it. It floods every year and this brings nutrients to the riverside, feeding many plants. Halfway to this bird's paradise the Aquatic warblers also see the sands of the famous Sahara Desert.

Who lives in Senegal?



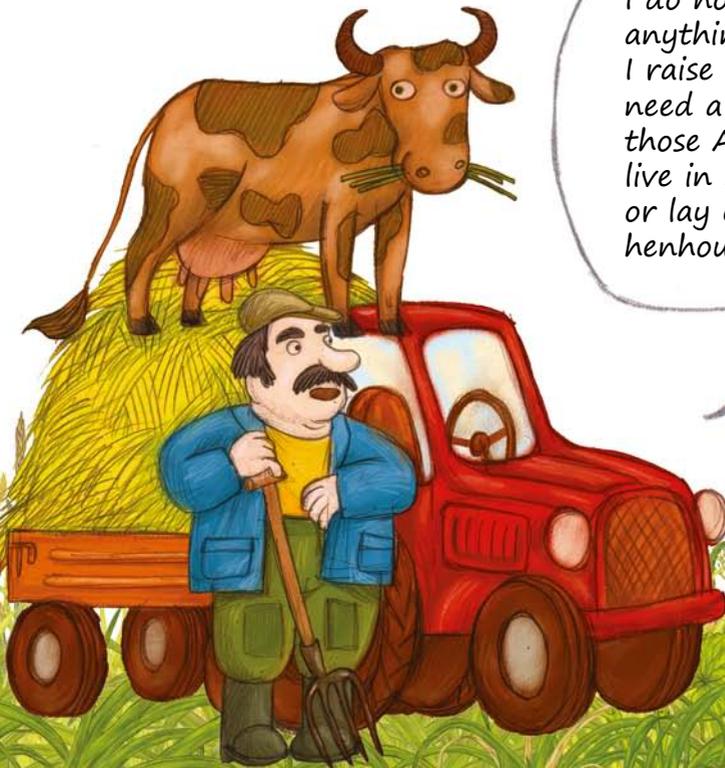
Find and cross out the names of African animals.

K	Z	E	X	A	R	A	C	A	K	E	N	A	G
A	M	O	N	I	T	O	R	L	I	Z	A	R	D
R	U	P	A	N	I	P	Y	T	H	O	N	N	A
P	G	P	K	I	N	G	F	I	S	H	E	R	E
M	I	S	E	R	V	A	L	F	R	A	E	S	G
B	C	O	R	M	O	R	A	N	T	R	A	F	A
O	L	B	H	L	E	O	M	J	G	E	G	I	Z
A	L	O	Y	P	E	L	I	C	A	N	L	K	E
R	E	A	E	O	T	U	N	W	Y	S	E	D	L
U	M	P	N	E	L	I	G	A	N	A	S	R	L
S	E	R	A	T	C	R	O	C	O	D	I	L	E

Birds and farmers: How to coexist

Meadows are the home and stronghold of the Aquatic warbler. It feels safe here. However, people are always living nearby, and they are also farming there. The farmer raises cattle and wants them to come to the pasture as early in spring as possible, so that they can feed upon fresh grass. He harvest hay few times to prepare good fodder for wintertime.

At the same time – the beginning of summer – the Aquatic warbler's young are growing up. They can't fly yet; instead, they sit in their nest and wait for their mother, who provides them with food. Suddenly, the ground starts to shake, deafening noise drowns everything out, and the returning mother finds only a giant coiled bale of grass instead of her nest.

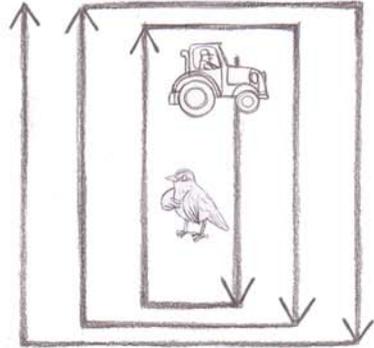
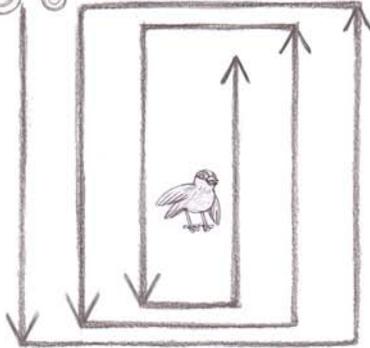


I do not know anything about birds; I raise cows. And cows need a lot of grass. Let those Aquatic warblers live in nesting-boxes, or lay eggs in my henhouse.



Various mowing techniques

Compare and determine which way the farmer should go to protect the birds and young mammals.



People and birds can coexist if the farmers kindly follow these rules:

- ✓ Refrain from herding cattle at the breeding grounds of Aquatic warblers.
- ✓ Avoid mowing down sites for hay until the Aquatic warbler young fly out of the nest.
- ✓ Remove mowed grass from the field.
- ✓ Start mowing from the centre of the field, so that the birds and young mammals can run away.

Why are we waiting to mow this field?



There are birds there right now. We will mow this field later, when the birds leave the nests.

How to help birds

Human activity caused major threats for Aquatic warbler and people are the only ones that could save the species.

Everybody agreed to help.

The environmentalist observes and counts birds, gives the farmers advice on how to mow the grass from their meadows and fens, and talks to local residents and tourists.

Farmers who have rare birds living in their fens and meadows learned to follow the rules, helping the birds to survive.

Farmers and businessmen who own hay fields remove the grass and produce environmentally friendly fuel.

Schoolchildren observe the birds

together with their teachers, then tell their parents and friends about what they saw.

The mayor takes care of the pumping station and ensures that water is pumped out of the flooded meadows, so that the farmers can mow the fields.

Only time will tell if these efforts will help the Aquatic warblers. Let's wish them luck!

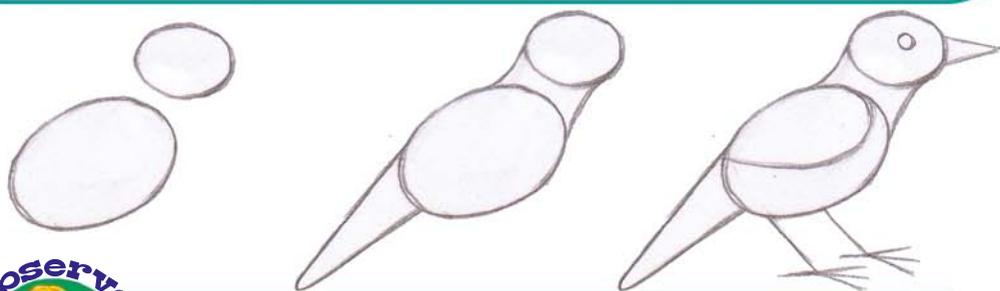
Even if the area around your house is not inhabited by Aquatic warblers, you can still help to save rare birds. Become an environmentalist! You can start right now – learn how to understand and protect nature.





Draw

Use the example and try to draw a bird you saw.



Field task

Observe the birds “posing” on power lines and take your first photograph. Watch birds from up close in the city and learn how to photograph them.

Smile, they are taking pictures of us.



The grass is mowed by special wide-track tractors in the areas inhabited by Aquatic warblers, since they won't get stuck in wet meadows.



My action plan

Even if you do something small to help the environment, you will join the band of people who care about preserving nature. Assess your abilities and knowledge and go for it!

Try to write down your plans to help the Aquatic warbler and other birds. You've already finished a big part of the job: you know that this little bird exists, you've read a book about it, and you've completed the provided tasks. Now you're probably wondering what birds live in your neighbourhood, how you can watch and observe them, how to spot and research a rare bird, if you'll be able to patiently observe the bird when you spot it through your binoculars, and if you'll be able to differentiate birds by their song. Only when you're out in the wild (one time is not enough!) you will be able to uncover all these mysteries.



Recognize!

Try to recognize the birds according to their exceptional features. Which one is the Aquatic warbler? Get some hints from the bird guide at the cover of the book if you need help.





Think and answer

What can I do today?

What can I do in a month's time?

What can I do in my class this year?

What can I do when I grow up?

What can I do together with my friends?

My possible assistants:



Nature observers' memo:

Understanding nature is a very interesting activity. However, nature doesn't reveal its secrets to just anyone.

Here are a couple of important tips:

- ✓ Try to be patient and notice small things.
- ✓ Learn how to listen and recognize what you hear.
- ✓ Be silent and invisible in nature.
- ✓ Make records, draw, take photographs, and record sounds if you can.
- ✓ Share your impressions with friends, parents, and teachers. However, do not invite everyone to nature with you.
- ✓ Be curious and careful. Wildlife can be dangerous!
- ✓ Learn how to observe the lives of animals and plants without disturbing them.
- ✓ Do not pick plants, and do not touch nests.
- ✓ Remember – you are a guest in nature, so do not leave any trash.



Bird watching

Start observing birds near your house. Install a bird feeder during winter and feed the birds every day. Continue your bird watching at your local city park or garden. When you get to know the birds around your environment, ask the grownups to take you to a lake, wild meadow or forest. Research their differences.

During migration times in spring and autumn the birds flock near large sources of water. These are great places to watch the birds and train to determine their age, sex, and how they are communicating with each other and other bird species.

Draw or record your most important observations in a notebook so you remember them. Get to know other young naturalists and bird lovers, share your experiences, and learn from them.



Birds are especially vulnerable when they incubate and raise their younglings. When planning a trip to nature, ask your parents or teachers for consultation with ornithologists on how to avoid damaging them.



The spring bird migration happens during the months of March to May, and the autumn migration happens during the period from August to November.



Read the young ornithologist's record sheet. What unknown bird did he find?



2013-06-15, 20:30 A wet field in the Nemunas river delta. A calm evening, no wind.

Observed: Reed bunting, meadow pipit, common snipe. A corn crake has been heard.

Unknown bird observed on a sedge stem:

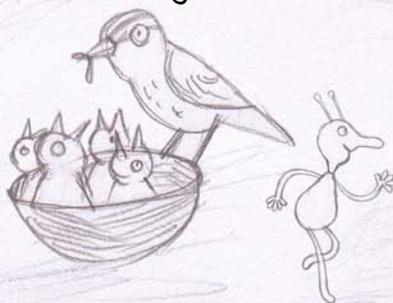
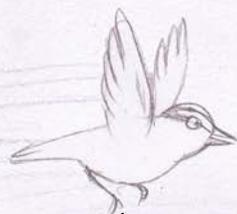
Size: 2 times smaller compared to a sparrow.

Appearance: looks similar to the Sedge warbler.

Behaviour: a green grasshopper was spotted in its beak while observing the bird through binoculars. After that, the bird flew away to the centre of the field.

Its voice was quiet:
"trrrr - ju ju ju - di di di".

NAME:



Ornithologists can recognize a bird from just one of their feathers. Try to do it yourself!

Collect feathers during your hikes and glue the ones you have recognized into an album, including the written name of the bird and its picture.



Biological diversity – the entirety of all species of plants, animals and other living organisms in a specific territory.

Breeding habitat – surroundings of a bird nest, where the female searches for food to provide to its young.

Brood – juveniles of the same generation, growing in the nest.

Camouflage – an ability to blend in with the surroundings visually, to hide from predators.

Delta – the area where a river enters the sea or other water body; these frequently resemble triangles on maps. In this area the river divides into a number of smaller rivers.

Environment – the entirety of an organism's living conditions.

Flooded meadows – areas of land flooded by river water during spring for a period of time.

Food chain – the order in which organisms depend on each other for food; for example, from sun to plants, to caterpillars, to warblers (and the warblers are a natural prey for predators).

Genus (Genus lat.) – a small group of similar species; species make up a genus.

Habitat – the home of an animal or a plant.

Invertebrates – an animal without a backbone, e.g. insects, arachnids. Main source of food for the warblers.

Juvenile – a newly born bird living in a nest, incapable of sustaining itself independently yet.

Larva – a wingless larvae of a butterfly; warblers' food.

Meadow – land covered in grassy vegetation, divided into natural meadows and grazing meadows.

Migration – annual movement of birds to the wintering areas and their return during spring.

Order (Ordo, lat.) – a large group of similar species; e.g. the sparrows order.

Ornithology – science about birds. Bird researchers are frequently called ornithologists.

Pair – two birds of different sexes, having juvenile.

Predators – animals that feed on other animals.

Species – the primary unit of allocation of a living nature, that has double names, e.g. Aquatic warbler.

Territory – an area controlled by an animal, which it defends; e.g., the warbler male uses a special voice tone to warn off any newcomers.

Wetland – a habitat that is characterized by an excess of water and its fluctuations.



The birds I have been observing

Date, time, location:

My drawing



Size, appearance, behaviour:

Voice:

Name:



International Aquatic Warbler Conservation Team (AWCT) unites nature conservationists and scientists that is actively taking care of aquatic warbler and its' home all over Europe and Africa.

Members of this group constantly collect data about species population and habitats, maintain active dialogue about the newest reseaches and conservation methods and also initiate various projects and inititives to improve the situation. Founders of this group are not only responsible for dicovering many aquatic warbler unknown breeding sites but also making research under difficult conditions in it's wintering sites in Africa. In 2018 this group will celebrate it's 20th aniversary. Find out more about this group go at www.otop.org.pl and look for „Aquatic Warbler Conservation Team”.



Aquatic Warbler Conservation Team in Senegal expedition in 2007. Photographer: Volker Salewski.



This small book was published by the Baltic Environmental Forum Lithuania. It unites like-minded people who care for the fate of not only birds, but our entire planet. We initiated English version of the book in order to encourage people and organizations in other countries to use and adapt it for national translations. Feel free to contact us to help you. Let's spread the word about this amazing species among the young future nature conservationists! Find out more about us on the Internet at: www.bef.lt/en



This small book was prepared and published for the first time in Lithuanian and Latvian through the implementation of the project “Securing Sustainable Farming to Ensure Conservation of Globally Threatened Bird Species in Agrarian Landscape” (Baltic Aquatic Warbler, no. LIFE09 NAT/LT/000233). Second edition of the publication in Lithuanian, English and Russian versions have been prepared and published through the implementation of the project “Stepping stones towards ensuring long-term favorable conservation status of Aquatic warbler in Lithuania” (LIFE MagniDucatusAcrola, no. LIFE15 NAT/LT/001024). We care about the preservation of the Aquatic warbler.



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You can find out more about the projects and the Aquatic warbler here: www.meldine.lt/en

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Meadow foxtail – *Alopecurus pratensis*

40–120 cm high. Common in meadows. Blooms in April–May.

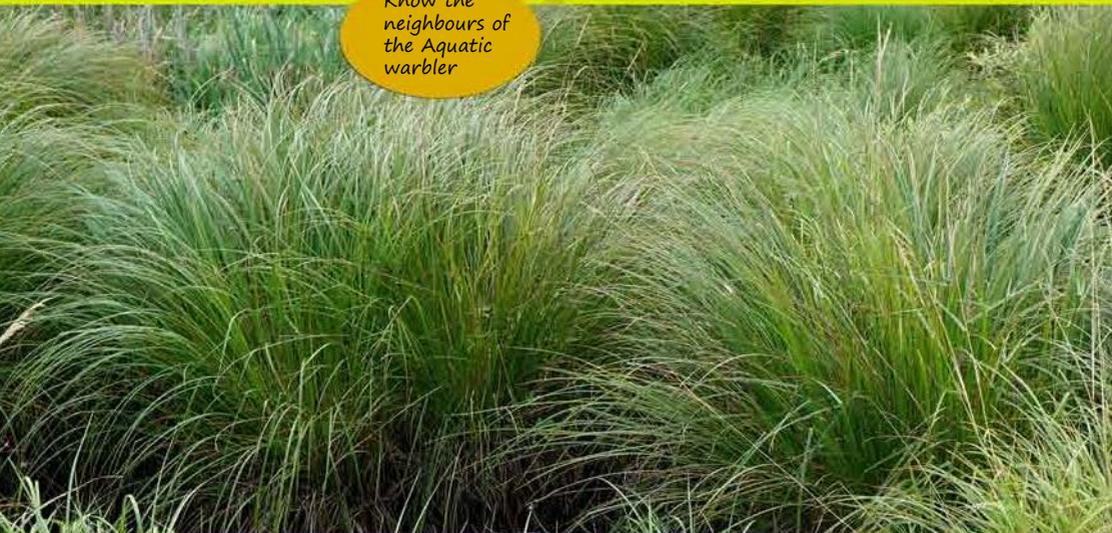


Meadowsweet – *Filipendula ulmaria*

40–130 cm high. Common. Blooms in June–July. Grows in groups in swampy meadows and forests.

Plants

Know the
neighbours of
the Aquatic
warbler



(Fringed) tufted sedge - *Carex elata*

40– 90 (150) cm high. Common, Blooms in April-May. Grows in wetlands, ditches, fen mires.



Plants

Know the
neighbours of
the Aquatic
warbler

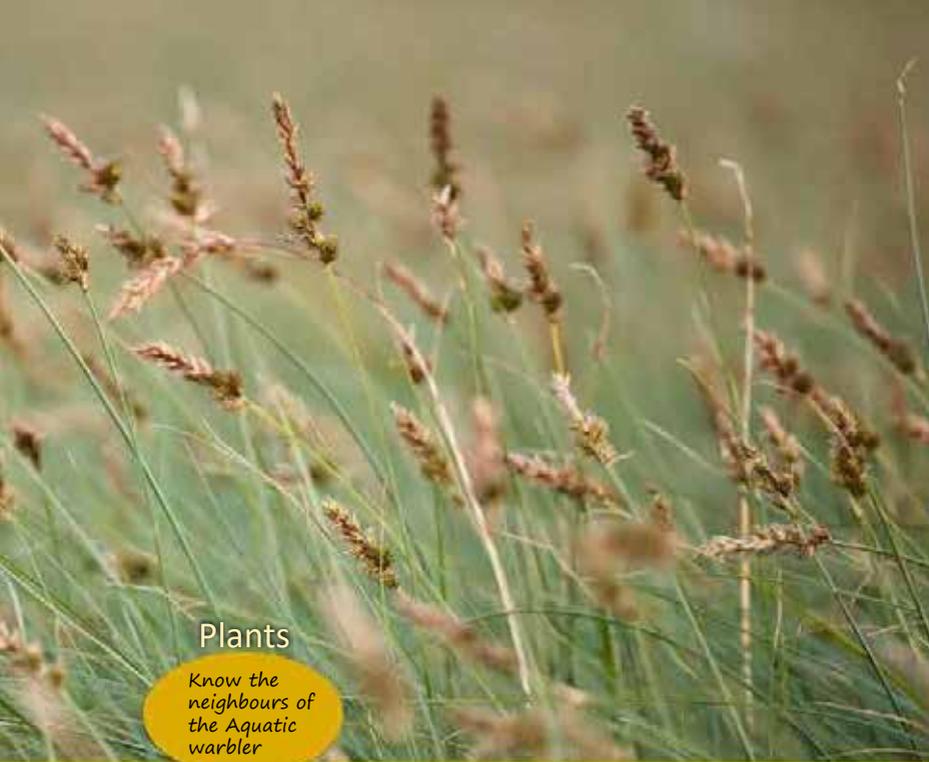
Reed canary grass – *Phalaris arundinacea*.

70–250 cm high. Common. Blooms during July–August. Grows in groups.



Purple loosestrife – *Lythrum salicaria*

30–100 cm high. Common. Blooms in June–September. Grows in wet meadows and at shores.



Plants

Know the
neighbours of
the Aquatic
warbler

Brown sedge – *Carex disticha*

20–80 cm high. Common in wet areas. Blooms in May–June.



Early marsh orchid – *Dactylorhiza incarnata*

20–80 cm high. Uncommon. Protected. Blooms in May–July. Grows in wet meadows and swamps.



Menyanthes – *Menyanthes trifoliata*

15–30 cm high. Common. Blooms in May–June. Grows in wet meadows, swamps and ditches.



Comfrey – *Symphytum officinale*
30–100 cm high. Common. Blooms in June–July. Grows in wet meadows, shores, mires.



Garden loosestrife (Yellow loosestrife) – *Lysimachia vulgaris*
50–150 cm high. Common. Blooms all summer. Grows in wetlands, flooded meadows, forests.

Plants

Know the neighbours of the Aquatic warbler



Yellow iris (water flag) – *Iris pseudacorus*
50–100 cm high. Common. Blooms in June–July. Grows in wet fields, shores, around swamps.



Plants

Know the
neighbours of
the Aquatic
warbler

Tufted (bird) vetch – *Vicia cracca*
30–120 cm high. Common. Blooms all summer. Grows in meadows, fields, forest outskirts.

Meadow vetchling (meadow pea) – *Lathyrus pratensis*
30–100 cm high. Common. Blooms all summer and beginning of autumn. Grows in meadows and forest outskirts.



Kingcup (marsh marigold) – *Caltha palustris*
15–30 cm high. Common. Blooms in May–June. Grows in wet meadows, shores.

At first glance, you might think that all grass is the same in the meadow and the birds chirp in very similar voices that can't be told apart. The truly mysterious world of nature can be intimidating: so many unknown creatures, plants, and sounds! But isn't it fun to get to know new things, to be surprised, to learn, and to find friends along the way to share your adventures with?

If you are preparing for an exciting trip to nature, this little guide will help you understand the world of meadow birds and one of its rarest inhabitants – the Aquatic warbler.

If you find that there are more questions than answers in this book, remember this: curiosity is a necessary quality for understanding nature – one of the most important qualities that children and scientists share.

Read it from cover to cover and learn how you can help to save the Aquatic warbler!

This book will not only tell you interesting facts about this little singer, but will provide you with fun things to do that will help you understand the mysterious world of meadows.

Facts and stories for thought.



Exceptionally interesting bird facts.



Leisure activities that help to preserve nature.



Hints on how to observe nature independently.



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